FEBRUARY 13, 1956 How KCS Will Expand Piggyback . . . p. 30

RAILWAY AGE

One of Five Simmons-Boardman Railway Publications

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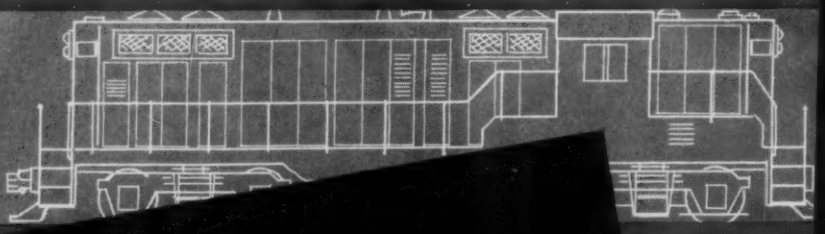

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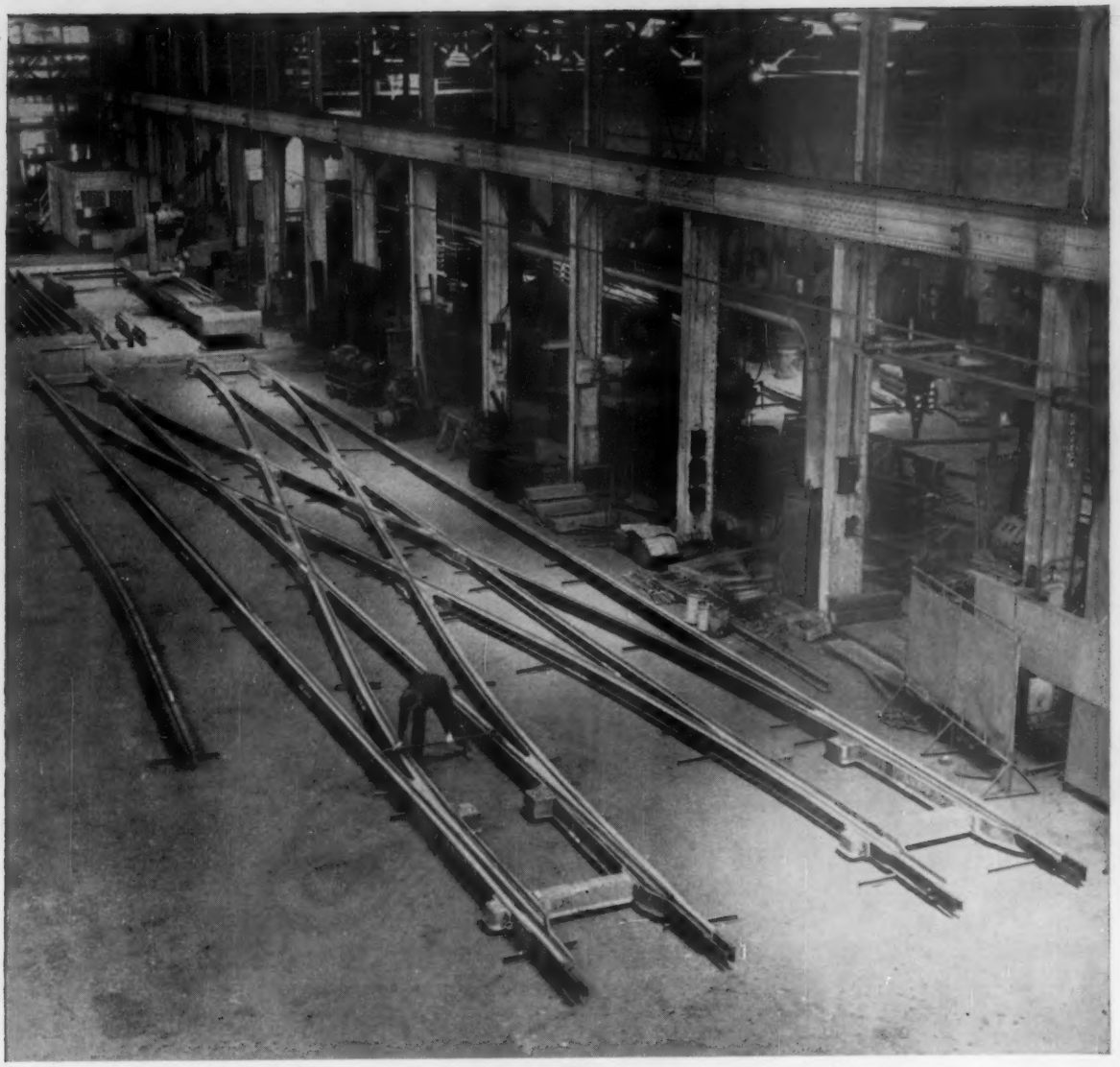

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Workbook of the Railways

Vol. 140, No. 7
February 13, 1956

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Week at a Glance

Passenger car costs can be cut, a Pullman-Standard electrical engineer told the recent meeting of the Institute of Electrical Engineers. This worthy objective can be achieved through simplification and standardization of car design, leading to mass production. . . . 7

The ICC has refused to reconsider its decision of last year which dismissed federal government reparations claims against railroads for alleged overcharges during World War II. The Justice Department's petition for reconsideration was rejected by the commission with a statement that the procedure it originally had adopted was "in accord with sound principles of administration." . . . 8

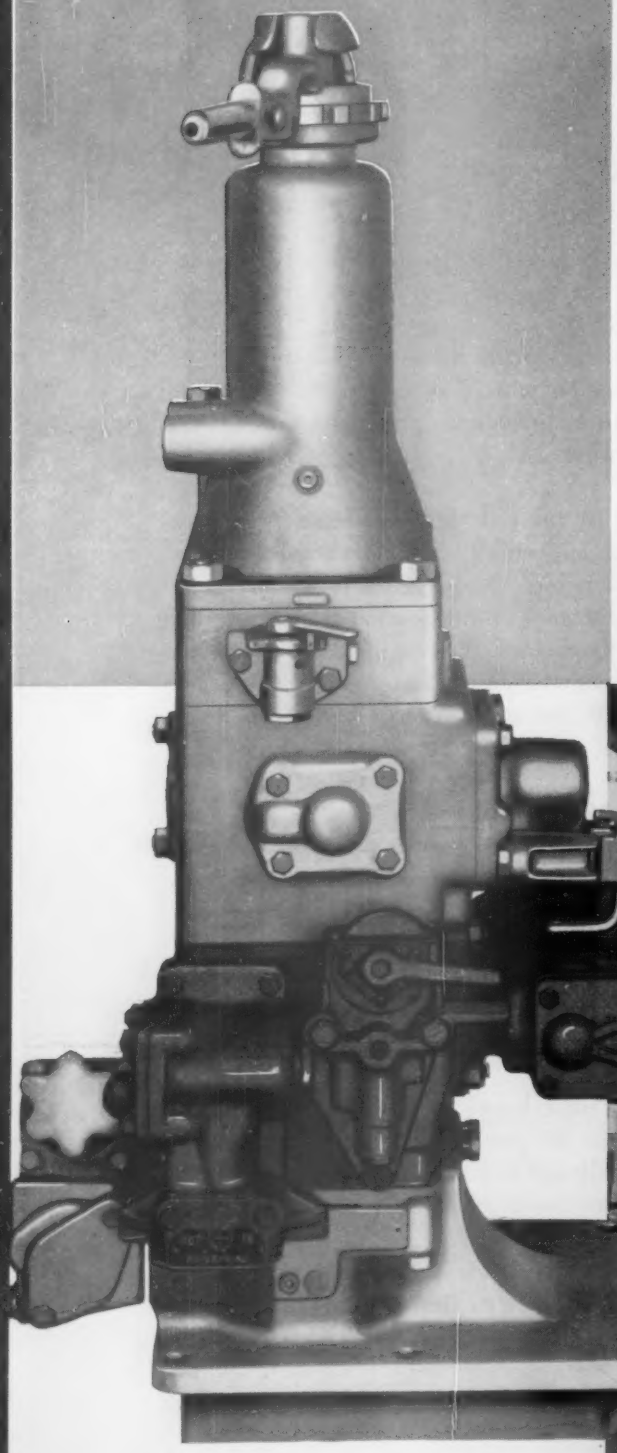
"Every group affected" by the Cabinet Report on Transport Policy "will be given an opportunity to make their objections or voice their approval before hearings on this subject have ended," says Chairman Magnuson of the Senate Committee on Interstate and Foreign Commerce. A Senate bill to implement Cabinet Report recommendations is before the committee Senator Magnuson heads, but no date has been set for hearings. . . . 11

FORUM: Where "quickies" won't work—or "in and out" schedules for facing into problems—that's the public relations field, especially for railroads. Education to develop public understanding of—and support for—some of the railroads' objectives, operates with the slowness (but overwhelmingly effective growth) of a glacier, and a quick garden-hose-like spattering of information and data is pretty likely to be wasted. . . . 29

How KCS will expand "piggyback" involves equipment (an order has been placed for 50 "guided-loading" type flat cars); close coordination of railroad and truck operations and pricing; and extensions of service in areas where volume promises to be profitable. . . . 30

Why the NKP uses train radio on its Buffalo-Chicago main line is primarily a matter of economics—reduced costs and improved performance. . . . 32

24RL—the road locomotive brake that can be kept modern



Sectional construction, as followed in the 24 RL Brake Valves, provides for the addition of new or improved functions merely by the substitution of sections. The advantage, of course, is that the brake equipment can be kept modern with minimum investment as compared to entire brake valve replacement.

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Current Statistics

Operating revenues, eleven months	
1955	$9,248,147,540
1954	8,573,470,254
Operating expenses, eleven months	
1955	$6,951,141,263
1954	6,755,791,805
Taxes, eleven months	
1955	$1,017,788,031
1954	821,712,588
Net railway operating income, eleven months	
1955	$1,050,329,204
1954	766,016,100
Net income, estimated, eleven months	
1955	$ 830,000,000
1954	562,000,000
Average price 20 railroad stocks	
February 7, 1956	97.35
February 8, 1955	85.61
Carloadings revenue freight	
Four weeks, 1956	2,712,773
Four weeks, 1955	2,504,652
Average daily freight car surplus	
Wk. ended Feb. 4, 1956	6,007
Wk. ended Feb. 5, 1955	51,320
Average daily freight car shortage	
Wk. ended Feb. 4, 1956	3,519
Wk. ended Feb. 5, 1955	392
Freight cars on order	
January 1, 1956	147,320
January 1, 1955	15,317
Freight cars delivered	
Twelve months, 1955	36,896
Twelve months, 1954	35,558
Average number of railroad employees	
Mid-December 1955	1,070,964
Mid-December 1954	1,029,191

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Week at a Glance CONTINUED

"Airslide"—that's an idea that's clicking on many railroads, and the results are based on controlled tests. Cost-cutting relief is an outcome that many shippers can expect to evolve as more units of this type go into service . . . 35

All services are under one roof at the Lehigh Valley's new combination passenger and LCL freight terminal at East Buffalo, built to replace that road's "downtown" facilities taken over by the New York State Thruway. . . . 38

COMING—Next week: An analysis of car record costs, leading an experienced accountant to the conclusion that railroads can save some worth while money by revising some of their techniques in this area.

BRIEFS

Ship operating subsidies may now be paid to American operators on the "ocean route" between Great Lakes and St. Lawrence ports of the United States and ports of western Europe. That's the effect of a determination by the U. S. Maritime Administrator, C. G. Morse, who has declared the route "essential" to the trade and economy of the nation.

ICC hearings on sale of TP&W began in Peoria February 1. The M&StL is seeking exclusive ownership of the TP&W while the Santa Fe and Pennsylvania are seeking a joint ownership. The Rock Island, Nickel Plate, Wabash and Burlington would like to share in TP&W ownership along with the Santa Fe and PRR.

Secretary of Agriculture Benson has just written the ICC, advising that agency not to allow the railroads a freight rate increase on agricultural products because the farmers, he says, can't afford it. We don't recall reading in the papers where the secretary gave such advice to the automobile builders when they raised their prices last fall, yet just one auto maker turned in a bigger net profit last year than all the railroads put together.

Solution to New York's traffic congestion and commuting problems lies in mass transit, Co-chairman C. H. Tuttle of the Metropolitan Rapid Transit Commission indicated in a recent address to the New York State Chamber of Commerce. "Temporary palliatives" to ease movement of automobiles must give way, he said, to planned provision for mass transit rights of way in future highway construction.

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Can Passenger Car Costs Be Cut?

Yes, through simplification and standardization of car design, leading to mass production, says Pullman-Standard's J. L. Swarner

Railroad car manufacturers now have an opportunity to mass-produce and greatly reduce the cost of lightweight trains, J. L. Swarner, electrical engineer, Pullman-Standard Car Manufacturing Company, told the recent New York meetings of the American Institute of Electrical Engineers.

Mr. Swarner indicated how standardization would contribute to these objectives. For example, assuming that electric power is the logical means for heating, lighting and air-conditioning modern lightweight trains, lack of underfloor room means that needed power should be developed on one or more locomotive units. Then, the only weight added to cars by power supply equipment is trainline conductors.

Lightweight-train cars being thus simplified, he pointed out, the opportunity is presented for much simplification and standardization of car design. Such standardization, Mr. Swarner said, should enable railroads to compete more economically with mass-produced automobiles and buses.

In the period 1945 through 1953, Mr. Swarner said, Pullman-Standard built 1,235 non-sleeper passenger cars for domestic use from 151 different floor plans for 41 different customers. Forty-three per cent of the cars built were made from specifications covering less than three cars, and 73.5% were produced from plans covering less than seven cars. During the same period, Pullman-Standard built 913 sleeping cars for domestic service, excluding troop sleepers. Of these, 21% had less than three cars per plan, and 42.5% had less than seven cars per plan.

Another paper presented at the meeting, discussed rehabilitation of the Long Island's passenger cars, which has included ordering 220 new cars and modernization of 696 existing cars. The latter were sound structurally, but had not kept pace with developments such as modern seating, lighting, ventilation and other interior arrangements, and also required upgrading of electrical equipment. While buying new cars and modernizing old cars would seem to have little in common, actually the two were intentionally related considerably in the interests of standardization and economy. All the new cars are air conditioned, and, so far as possible, components of all cars are designed so they may be supplied by any of a number of manufacturers.

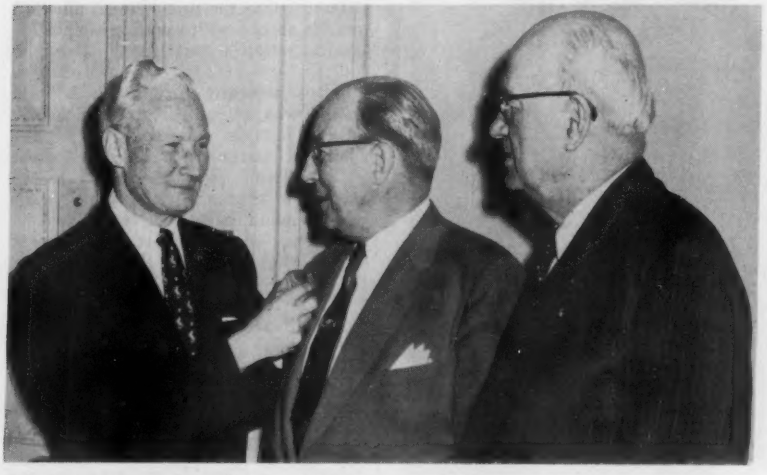
The paper was presented by P. H. Hatch, general mechanical superintendent, Long Island.

Electrification Revitalized — The two electrified sections of the Milwaukee after 37 and 41 years' service, respectively, show a performance record equal to anything that can be produced by other types of motive power operating in similar territory. To accomplish this, some new locomotives have been added, some have been rebuilt, and some scrapped. Substations have been made automatic, line voltage has been increased and maintenance of contact system and of locomotives improved. Train speeds have been increased and a good power contract and a completely amortized contact system contribute to low cost of operation. A report covering this achievement was included in a paper on improvements in the design, maintenance and operation of the road by Laurence Wylie, Milwaukee electrical engineer.

Two papers on diesel-electric locomotive overhaul dealt primarily with bringing such locomotives up to date as they go through the shops. The papers were presented by J. F. Russell of Alco Products, and W. A. Kirsch, of the Westinghouse Electric Corporation. Objectives of the updating are reduction of maintenance through use of more reliable components, simplification by means of standardization, reduced cost of replacement parts by use of quantity-produced items, and lowered inventory of replacement parts.

Replacements suggested included such things as wheel slip control, ducts for wiring, simplified controls, impulse relay flashover protection, motor-driven field shunt control, rectifiers for the ground relay, and impregnated glass fiber armature bands for insulating the steel bands.

The advisability of having heavy repairs to diesel-electric locomotives made in the manufacturer's shops was discussed in a paper presented by K. O. Anderson of the General Electric Company. Mr. Anderson called attention to the fact that diesels require pre-



C&O Honors Brotherhood Assistant Chief

Press Southworth (center), assistant grand chief engineer of the Brotherhood of Locomotive Engineers and a veteran locomotive engineman with the Chesapeake & Ohio, receives a 50-year gold service pin from Walter J. Tuohy, C&O president. Looking on is Guy L. Brown, BOFLE grand chief engineer. Mr. Southworth, 70, started with the C&O in 1905 and took a leave of absence in 1946 to become the union's assistant grand chief. In presenting the pin and a gold railroad pass to Mr. Southworth, Mr. Tuohy said the "C&O is proud that one of its long-time associates has achieved such high position in the nation's oldest line brotherhood."

cision maintenance, involving special facilities and know-how. These, he said, can scarcely be afforded by smaller railroads, particularly those with several different types and makes of locomotives. Mr. Anderson expressed the belief that these factors will gradually cause larger roads to use more of the manufacturers' service facilities.

Mr. Anderson said, also, that improvements constantly being made by the manufacturer frequently are not known to the railroad shop operator. However, when the work is done in the builder's shop, more recent innovations may be incorporated, making the overhauled locomotive better than new.

Dirt and moisture are largely responsible for the cost of maintaining electrical equipment on diesel locomotives. An air-cleaning blower has been developed which will exclude most dirt, rain and snow from the air used to ventilate traction motors. The blower was described by J. J. Gallagher of General Electric.

The device uses an axial flow fan. Separation is accomplished by spinning the air stream, whereupon the inertia of foreign particles causes them to separate from the air. Cleaning efficiencies of more than 70% have been realized. By reducing the major cause of electrical troubles and insulation failures, air cleaning has increased the reliability, and cut the maintenance cost, of locomotive traction motors. An air-cleaning blower requires 10 to 15% more horsepower than an equivalent blower without the cleaning feature.

Testing insulation by high-voltage direct-current, instead of high-voltage alternating current, is said to be finding favor in railroad shops. The a-c method, which was based on testing new insulation, may break down insulation in service because of dirt and moisture before the insulation is ready for renewal or replacement. When d-c testing is used, it is possible to measure current flow through the insulation as voltage is raised. This frequently allows the operator to anticipate failure and prevent damage to insulation which may be restored to good condition by cleaning and drying, and by dipping or impregnating with varnish.

Two papers on this subject were presented respectively by J. K. Hewson, the Hewson Company, and D. E. Stafford, National Electric Coil Company, and by P. G. Lessmann and William Schneider, both of Westinghouse Electric Corporation. They described equipment for such testing and methods of procedure which will insure its most effective application.

Wire banding used for retaining coils in slots of direct-current electrical machines like those used for diesel locomotive motors and generators is an established art. The subject took the form of a mathematical study in a paper prepared by E. C. Appleby and P. G. Lessmann, both of Westinghouse Electric.

The result is an improved method of banding which eliminates the need of solder for a band closure.

ICC Won't Reconsider Reparations

Commission, rejecting Justice Department's petition, says original decision was based partly on impossibility of reconciling "various estimates of the money involved"

The Interstate Commerce Commission has refused to reconsider its decision of last year which dismissed federal government reparations claims against railroads for alleged overcharges during World War II.

The refusal came in a report and order (dated January 9) which denied the petition for reconsideration filed by the Department of Justice. Seventeen complaints were involved, but the commission consolidated them in one proceeding and made one report (*Railway Age*, April 11, 1955, page 7).

The commission's refusal to let the cases be tried separately was one basis of Justice's petition for reconsideration, The commission rejected it with a statement that the procedure it adopted was "in accord with sound principles of administration" recognized by the courts.

The amount involved in the claims was estimated as high as $2 billion, but the official guess of the Justice Department put it at "about $475 million." The petition for reconsideration contended that this latter figure should have been mentioned in the commission's report "to prevent wrong inferences." Of that contention, the commission had this to say:

"In arriving at our decision, we concluded it was impossible to reconcile the various estimates of the total amount of money involved and unnecessary to undertake the task. Our conclusion that 'the amount of reparation which would be due if complainant's contentions in these cases were sustained . . . would be large by any standard of comparison' is consistent with statements in the petition that the amount involved is 'many millions of dollars,' . . . 'substantial,' . . . 'enormous.'"

The commission's report noted that Commissioners Mitchell, Hutchinson and Murphy did not participate. It was said at the Department of Justice last

Pulpwood Car Will Haul 70% More

Miniature logs tumble from the hinged door of a model of a new pulpwood car being demonstrated by W. B. White (left), Canadian National research engineer, to the Woodlands section of the recent Montreal meeting of the Canadian Pulp & Paper Association. Advantages claimed for the new car are that it will be able to haul 70% greater loads, can be loaded several different ways, and that it will roll with greater speed and safety than existing cars. One car is being built by the CNR for actual tests, after which the road expects to order them in quantity.

week that no decision had been reached on whether there will be an appeal to the courts.

REA Files 7% Increase in 1st and 2nd Class Rates

A 7% increase in first and second class rail express rates and charges, effective March 20, is provided in a tariff filed by the Railway Express Agency, with the Interstate Commerce Commission February 3.

The first and second class rate increases are applicable to and from all express offices throughout continental United States. The new tariff does not apply to commodity rates which will be subject to special study by the agency.

A. L. Hammell, REA president, said the increases are designed to cover, in part, substantial increases in wages, welfare benefits and other costs totaling over $35 million annually. He added that the increases just filed could not have been held as low as 7% had the agency not been able to offset some of the higher costs during recent years through its continuing investments in new and improved equipment and facilities, which led to increased traffic volume.

Labor & Wages

Rails Grant $34 Monthly Pay Hike to Dispatchers

The American Train Dispatchers Association and various railroads have signed an agreement granting some 4,000 dispatchers a monthly wage increase of $34. The wage increase, retroactive to last October 1, includes $6.80 in lieu of a carrier-financed health and welfare plan.

BRT Will Demand Raises This Week

The Brotherhood of Railroad Trainmen is expected to serve this week demands for wage increases and seven paid holidays for its members in train and yard service.

The general demand will be for an increase of $3 per basic "day" for train-service employees, yardman, including yardmasters, and dining-car stewards. For train-service employees engaged in short turnaround passenger service, an additional $2.50 per "day" will be sought.

For dining-car stewards, there will also be a demand for a basic work month of 175 hours with time-and-one-half for all monthly hours in excess of 190. The basic month is now 205 hours and the overtime rate becomes time-and-one-half after 220 hours.

The seven holidays involved in that

RAILWAY MARKET *Outlook* THIS WEEK

New Equipment

LOCOMOTIVES

► *Louisville & Nashville.*—Ordered 56 diesel-electric units, approximate cost $9,300,000; Alco Products will build 28 1,600-hp freight units; Electro-Motive, 24 1,750-hp freight units and four 1,200-hp switchers; delivery, scheduled for completion by April 1, 1957, will enable L&N to dieselize completely, although some steam locomotives may be retained temporarily for special or emergency service; after delivery L&N's diesel roster will total 602 units; L&N intention to order "some 50 diesel locomotives" this year was reported in *Railway Age*, December 26, 1955, page 10.

► *Virginian.*—Ordered eight 1,600-hp diesel-electric units, Fairbanks, Morse; cost $1,225,000; delivery expected late in 1956; to be used between Norfolk and Roanoke, completing dieselization of that division.

PASSENGER CARS

► *Chicago Transit Authority*—Authorized conversion of 50 more PCC street cars to rapid transit cars, estimated cost $2,047,000; St. Louis Car Company will do converting; delivery expected to start in October.

SPECIAL

► *Two Roads Order Cabooses.*—Chicago & North Western and Elgin, Joliet & Eastern each have ordered 25 cabooses, International Railway Car; C&NW cars will be bay-window type, EJ&E's cupola-type.

New Facilities

► *Chesapeake & Ohio.*—Announced $2,500,000 expansion program on its Northern region in eastern Michigan, scheduled for completion by July or August; capacity of McGrew yard at Flint will be enlarged to handle 1,200 additional cars; new 1,000-car-capacity yard will be established at Grand Blanc; construction already has begun on centralized traffic control between Flint and Plymouth.

► *Jersey Central Lines.*—Plans $1,000,000 expansion and modernization in Ashley, Pa., freight yards; grading for yard-track changes has begun, other work will begin in spring; project will increase capacity of yards from 600 to 1,000 cars; E. T. Moore, president, said project will result in "substantial operating economies," plus improved service for freight and coal shipments via Wilkes-Barre, Pa., gateways.

Briefly . . .

. . . **John W. Barriger,** vice-president of the Rock Island, has been appointed chairman of the transportation section of the 1956 Chicago chapter Red Cross fund campaign. Fred W. Bainbridge, assistant vice-president, Pullman-Standard Car Manufacturing Company, has been appointed chairman of the railway supplies group of the Chicago transportation section.

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demand are New Year, Washington's Birthday, Memorial Day, July 4, Labor Day, Thanksgiving and Christmas. Also involved here will be a demand for time-and-one-half (in addition to the straight-time holiday pay) for service performed on these holidays.

Pension-Increase Bills Introduced in House

The Railway Labor Executives' Association program for increasing benefits under the Railroad Retirement Act by 15% has won bipartisan support in the House of Representatives.

Bills to implement the program, and to give the employees income-tax savings which should more than offset the pension-tax increase, have been introduced by three members of the House Committee on Interstate and Foreign Commerce. The bills are H.R.9065, H.R.9066 and H.R.9068, and their sponsors, respectively, are Representatives Harris, Democrat of Arkansas, Dolliver of Iowa and Wolverton of New Jersey, Republicans.

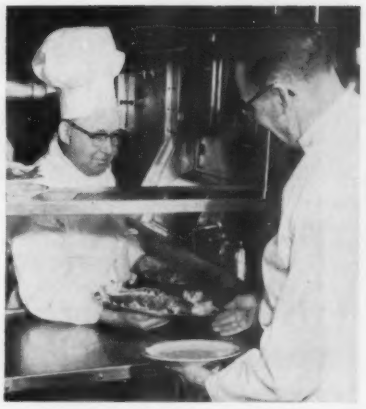
The pension-tax increase would be 2% of taxable payroll, thus raising from 12½% to 14½% the total levy which is paid half by the employees and half by the carriers. The offsetter would be a provision stipulating that employee payments would be excluded from their gross income for income-tax purposes.

Canadian Roads Oppose Wage Hike for Non-Ops

Canadian railroads have replied to the demands of non-operating employees for wage increases and other benefits with the contention that no changes in current bargaining agreements can be justified.

The roads said demands of the 16 unions added up to a 37-cent-an-hour, or 25%, increase that would cost railroads $159.4 million annually. The union demands and the railroads' answering statement have been filed with a Conciliation Board.

The roads asked that the board be guided by a criterion based on the principles that wages should meet "a reasonable standard of adequacy within the community" and should reflect "the limit of the industry to pay" in excess of such a standard. They pointed out that non-operating employees had an average wage of $3,057 in 1954, 4% higher than the $2,948 average of all employed persons in Canada that year.



It Looks Good!

Exotic foods such as caviar and pate de foie gras are said to be gaining in popularity with the traveling public. Enhanced by vintage wines and rare liqueurs, these delicacies are sharing favor with traditional roast beef and lamb chops on Canadian Pacific dining cars. Here, G. DeCarle, chef, and Gordon Jacobs, waiter, aboard the CPR's transcontinental "Canadian," inspect a savory lobster, one of the more popular delicacies aboard the train.

Operations

Atomic Locomotives Now Offer No Economic Gain

The Congressional Joint Committee on Atomic Energy has been told atomic locomotives "could in all probability be built and operated successfully, but appear to offer no economic advantages until substantial improvements in reactor technology are made."

The advice came in a report the committee received from its Panel on the Impact of the Peaceful Uses of Atomic Energy. The panel was headed by Robert McKinney, editor and publisher of the Santa Fe New Mexican. Senator Anderson, Democrat of New Mexico, is chairman of the Congressional joint committee.

On control of information, the panel report recommended that the Atomic Energy Commission declassify all reactor technology. Declassification, it said, should include "such areas as fuel element fabrication and processing techniques, leaving specific military applications of such technology to be protected, insofar as national security is involved, by the defense classification system."

The statement about the atomic locomotive was in the report's summary of the panel's findings on that subject. The summary went on to say there is no necessity for federal support of an atomic locomotive development program, but the AEC "should cooperate within limits of national security with any industrial efforts."

"There is no real industrial development program directed at atomic locomotives today and no directly comparable military atomic power projects are under way," the summary also said, adding, however, that "technical and engineering data being developed will undoubtedly improve the outlook for economically competitive atomic locomotives in the years ahead."

Despite its finding that "any early achievement of economically competitive atomic-powered locomotives appears unlikely," the panel's report included a discussion on the impact of atomic energy on the railroad industry. It was concluded that, if the atomic locomotive did come, the maximum impact on the oil industry as a result of the displacement of diesel-electrics would be "considerably less significant" than was the steam-to-diesel shift on the coal industry.

Conversion Cost—It was also concluded that the railroad industry, which financed $4 billion worth of diesels, could finance their replacement with atomic locomotives costing a total of $10 billion—"assuming capital costs of $250 per kilowatt." Manufacturers of diesels, the report added, "appear to have the basic engineering skills needed to produce atomic locomotives, hence should be able to hold their own in the event of such a development."

The report's further comment on the prospective impact was as follows: "Changes in rail rates and freight patterns seem unlikely to arise from this particular application of atomic energy, although we have noted that atomic electric power development might have some effects on railroads as a result of changes in industrial plant location. Few, if any, changes in existing railroad facilities would be caused by atomic locomotives since, in order to be economic, they would have to be designed in accordance with size and weight limitations of present railroad ways and structures."

Figures of the Week

Freight Car Loadings

Loadings of revenue freight in the week ended February 4 totaled 680,989 cars, the Association of American Railroads announced February 9. This was a decrease of 10,861 cars, or 1.6%, compared with the previous week; an increase of 45,210 cars, or 7.1%, compared with the corresponding week last year; and an increase of 56,604

cars, or 9.1%, compared with the equivalent 1954 week.

Loadings of revenue freight for the week ended January 28 totaled 691,850 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, January 28

District	1956	1955	1954
Eastern	120,555	109,378	112,252
Allegheny	140,559	118,107	124,073
Pocahontas	58,900	51,252	45,885
Southern	130,278	123,025	118,438
Northwestern	76,123	70,031	70,444
Central Western	111,697	110,940	103,977
Southwestern	53,738	54,383	53,124
Total Western Districts	241,558	235,354	227,545
Total All Roads	691,850	637,116	628,193
Commodities:			
Grain and grain products	46,366	46,027	44,664
Livestock	7,735	7,596	7,032
Coal	145,549	126,242	122,250
Coke	14,136	9,922	9,541
Forest Products	43,699	42,725	36,919
Ore	18,868	13,917	15,732
Merchandise l.c.l.	60,270	60,322	62,762
Miscellaneous	355,227	330,365	329,293
January 28	691,850	637,116	628,193
January 21	699,286	630,351	617,213
January 14	710,338	639,833	619,871
January 7	611,299	597,352	624,229
Cumulative total, 4 weeks	2,712,773	2,504,652	2,489,506

In Canada.—Carloadings for the seven-day period ended January 21 totaled 75,711 cars, compared with 73,285, cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
January 21, 1956	75,711	34,154
January 21, 1955	69,117	31,784
Cumulative Totals:		
January 21, 1956	211,839	95,918
January 21, 1955	197,908	86,948

AAR Price Index Hit New High in January

The Association of American Railroads' price index reached 132 in January which supplanted the previous quarterly figure (October 1955's 130.2) as the all-time high. The January 1955 index was 125.1.

This was shown by the latest issue of the index which is published by the association's Bureau of Railway Economics. The index reflects average unit prices of materials, including fuel, on the basis of the average of mid-year spot prices of 1947, 1948 and 1949 as 100.

Law & Regulation

Idaho Senator Wants ICC Investigated

"Full and complete investigation" of activities of the Interstate Commerce Commission in administering the Interstate Commerce Act is proposed in a Senate resolution introduced by Senator Welker, Democrat of Idaho.

The resolution, S. Res. 204, would direct the Senate's Committee on Interstate and Foreign Commerce to make the inquiry which would be "with particular regard to" these matters:

(1) Whether the commission has violated its duty "to encourage establishment and maintenance of reasonable charges for transportation services without unjust discrimination. . . ."

(2) Whether rate increases granted to railroads and other transport agencies "have been in accordance with law."

(3) What effect such increases have had on prices of agricultural products, including livestock.

(4) Whether commission actions allowing recovery of overcharges have been discriminatory "in any way."

Full Hearing on Cabinet Report

Senator Magnuson prefers "primary business" test to distinguish between private and for-hire operations

Chairman Magnuson of the Senate Committee on Interstate and Foreign Commerce last week made clear his determination to see that "every group affected" by the report of the Cabinet Committee on Transport Policy "will be given an opportunity to make their objections or voice their approval before hearings on this subject have ended."

The Democratic senator from Washington said this in an address prepared for a February 10 meeting of the Private Truck Council of America in Cleveland, Ohio. The Senate bill (S. 1920) to implement Cabinet Committee recommendations is before the committee which Senator Magnuson heads, but no date for hearings has been set.

The senator's address, devoted mainly to an outline of the Cabinet Committee proposals, did take a position on the proposal to change the definition of private carriage. He assured his audience of private truckers that, like them, he preferred to keep the present "primary business" test as a basis for distinguishing between private and for-hire operations.

In another part of his address, Senator Magnuson noted the Cabinet Committee's thesis that regulation of common carrier rates should be eased in view of the competition which has come into the transport field. "I should point out," the senator said, "that originally regulation was placed on transportation not only because of monopoly conditions but also to correct the evils of too much competition. The Cabinet Committee does not make this entirely clear."

Rate recommendations of the Cabinet Committee were interpreted by Mr. Magnuson as proposals which would take from the Interstate Commerce Commission the power to fix precise rates. On the proposal to leave the commission with power to deter-

SHOULD TRAFFIC MANAGERS SERVE ON TRANSPORT COMPANY BOARDS?

Traffic men themselves are evenly divided on the question of whether industrial traffic managers should serve as directors of railroads, truck companies, water carriers or airlines.

This is indicated by results of a nationwide poll just completed by *Railway Freight Traffic*, monthly publication associated with *Railway Age*.

Industrial traffic managers who favored the idea of having members of their profession serve as transportation company directors did so on the general ground that such an arrangement could help improve transportation service, to the benefit of industry as a whole. Typical expressions of those favoring the idea were that traffic men as directors "could effect a more balanced view"; could "make carrier management aware of shippers' problems"; and could "fill in the void between what the customer wants and what carriers think he wants."

Negative voters—whose numbers exactly equalled those on the affirmative side—based their objections on what they called the difficulty of "serving two masters." A traffic man as a transportation director, one respondent said, would be in "a difficult position," subject to criticism from one or both of the companies involved. Others felt that any possible benefits from having traffic managers on transportation company boards can be obtained just as well from existing channels.

The question *Railway Freight Traffic* asked the traffic men was: "Should carriers be encouraged to elect industrial traffic managers to membership on their boards of directors?" It was prefaced by the explanation that "Carriers of all types—rail, motor, water and air—might benefit from a wider range of management advice on their services and pricing policies. One way to obtain this would be to have professional industrial traffic managers as corporate directors."

HEYWOOD COMFORT ON GREAT NORTHERN'S

22 Dome Units Built by Budd

Dome sections of the coaches are seated with Sleepy Hollow model 820 seats.

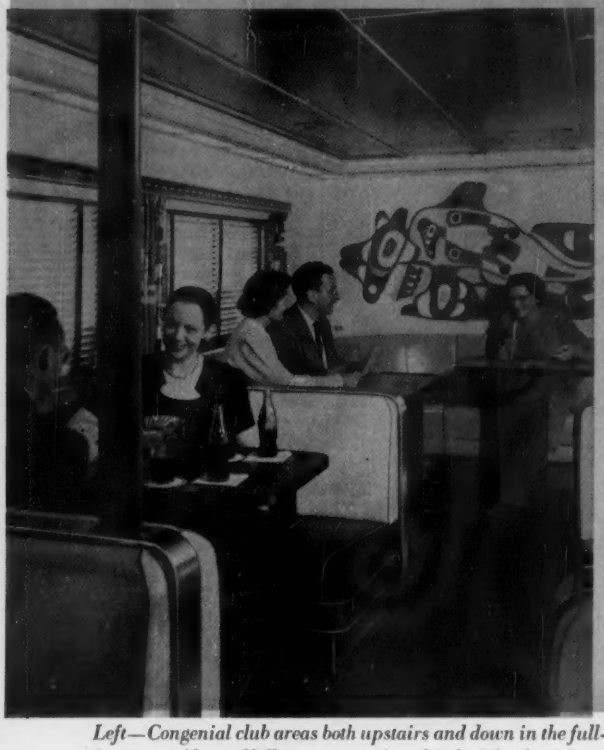
Above—This view of the Empire Builder shows three of the 16 new dome coaches with dome sections covering the central portion of the cars. There are also 6 new full-length dome cars.

★ ★ ★

Right—Special, Heywood-designed Dome Settees provide a highlight of comfort in dome sections of full-length dome cars. Notice how they are set at an angle for viewing pleasure.

TAKES MANY FORMS EMPIRE BUILDER

... Seated by Heywood-Wakefield



Left—Congenial club areas both upstairs and down in the full-length dome cars have comfortable, serviceable Heywood built-in furniture. Sleepy Hollow seats are found in both levels of these cars plus Heywood's special Dome Settees in the dome sections. Right—The downstairs sections of the dome coaches feature the lounge-chair comfort of Sleepy Hollow model 830 leg rest chairs.

Since the first *Empire Builder* was put into service many years ago by the Great Northern Railway, Heywood-Wakefield seating has been one of the distinguishing comfort features of this special train. Seating in the new dome units includes the luxuriously comfortable Sleepy Hollow chairs, spacious and smartly styled Dome Settees and attractive, specially designed built-in furniture.

Your Heywood representative will gladly give you complete details of the many seats and sleeping units available to provide the ultimate in modern comfort for your own passengers ... comfort with a minimum of maintenance service.

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Transportation Division
Gardner, Mass. • Orillia, Ontario, Canada
In Canada: Railway & Power Engineering Corp., Ltd.

GREAT NORTHERN RAILWAY
HEYWOOD-WAKEFIELD
EST. 1826
Budd

mine maximum or minimum rates, he said: "Much confusion exists concerning changes that would result if this new suggestion were put into the law."

As to the outlook for S.1920, the senator said: "I cannot predict which of the more controversial recommendations of the Cabinet Report will reach the Senate floor during the [present] session of Congress."

Financial

Proxy Fight Looming on C&NW?

Heineman group claims control of 33% of voting stock—Charges the road has too high an operating ratio

Ben W. Heineman, Chicago attorney and chairman of the executive committee of the Minneapolis & St. Louis, disclosed last week he and his associates control more than 465,000 shares of Chicago & North Western voting stock valued at $15 million and are acquiring another 100,000 shares.

The 565,000 shares would give the group control of 33% of the outstanding 1,729,447 shares of voting C&NW common and preferred stocks.

Mr. Heineman disclosed in a January 30 letter, addressed to Harry L. Wells, chairman of the C&NW finance committee, that his group does not want a proxy fight with the road's management but they "wish to have substantial representation on the board to assure . . . us a unified board to carry out a program to restore the North Western." He continued, "We are clear that material changes in the C&NW's management must be made."

A meeting between Mr. Heineman and the C&NW management was suggested in the letter. J. E. Goodwin, the C&NW's acting executive officer, said in his reply he would endeavor to arrange a meeting February 9 or 10.

"In our opinion, based upon any percentage of turnout at the annual meeting. . . our present holdings guarantee us a majority at that meeting," Mr. Heineman said in the letter.

"We are concerned over a report that a committee of the board has already been formed to conduct a proxy fight. There is serious doubt as to either the legality or the morality of the board of directors expending corporate funds in a proxy fight . . . solely for the purpose of perpetuating themselves in office. This is particularly true where, as here, many members neither have nor represent any investment interest to speak of."

Who Holds the Stock—Mr. Heineman summarized his group's holdings of 465,000 shares of common and preferred stock. He said "240,000 shares are owned and controlled as follows: 80,000 shares by J. Henry Helser & Co. of Portland, Ore.; 60,000 shares by Franklin Lyons of Chicago; 50,000 shares by Henry Howard of Baltimore, and 50,000 shares by Clarence K. Reynolds of Louisville, Ky.

"These persons came to me on their own initiative as dissatisfied shareholders, and it was at their urging that we bought . . . 225,000 shares of common and preferred stock as a part of a common buying program. In addition, we are in the process of acquiring another block of more than 100,000 shares."

Mr. Heineman had this to say about the operation of the C&NW: "Its transportation and operating ratios, in our opinion, are far too high; it has the highest wage and salary ratio to the revenue dollar of any railroad known to us; its net cost for the hire of cars is, we believe, far higher than necessary; it has recently lost to a competitor seventy-five-year-old contracts for transcontinental passenger trains which, while perhaps operated at a deficit, had definite prestige value, and their loss could well be followed by loss of revenue freight; it has accumulated an immense amount of deferred maintenance and, based on figures available to us, this deferred maintenance continued to accumulate during 1955, which was on all counts an excellent year for railroads generally; necessary consolidation and mechanization of transportation, maintenance, and accounting facilities have lagged or not begun."

An "Indefensible" Record — "In 1954, a moderate recession year so far as railroads were concerned, the North Western did not earn its interest. Even in so favorable a year as 1955, it will not have earned its preferred dividend despite what is, in our opinion, inadequate provision for maintenance, and despite the fact that no provision for federal income taxes was required or made.

"This record is indefensible and cannot be accounted for merely by the inherent problems of the North Western," the letter continued.

"We have made a detailed study of the report on economics of consolidation and coordination dated October 26, 1955, submitted by William Wyer & Company," Mr. Heineman said. "Although we firmly believe in the ultimate consolidation of the North Western and the Milwaukee, we do not believe that consolidation should take place at a time when the North Western is in a run down, and, in our opinion, demoralized condition."

Mr. Goodwin answered Mr. Heineman, saying, "Your letter contained numerous statements which we feel are unfair and incorrect and which we do not accept or agree to. We are interested, of course, in your statements, that you, as a stockholder representative of other stockholders, have a program for improving the company. You may be assured it is the policy of the management to hear and consider any constructive suggestions which any stockholder of the company, large or small, may wish to present."

M&StL Acquires the Minnesota Western

The Minneapolis & St. Louis has purchased the outstanding capital stock of the Minnesota Western, Ben W. Heineman, chairman of the M&StL's executive committee, has announced.

No sale price was disclosed for the 112-mile carrier, which extends from Minneapolis to Gluek, Minn., in Chippewa county. The road was built from Minneapolis to Hutchinson, Minn., in 1908-1920, and was extended to Gluek in 1927.

The sale was negotiated by John W. Devins, M&StL president, and Cargill MacMillan, who represented the family that owned the MW. MW motive power and freight cars were not included in the transaction.

Missouri - Kansas - Texas — *New Stock Exchange Plan.* — Stockholders have approved a cut in the stated value of common stock from $82 per share to $41. The reduction will make available $33 million in assets for capitalization of new securities to be offered in exchange for preferred stock (*Railway Age*, December 12, 1955, page 12).

Dividends Declared

CENTRAL OF GEORGIA.—5% preferred A, $1.25, quarterly; 5% preferred B, $1.25, quarterly; both payable March 20, June 20, September 20 and December 20, to holders of record March 9, June 9, September 8 and December 8.

DAYTON & MICHIGAN.—common, 87½¢, semiannual; 8% preferred, $1, quarterly; both payable April 1 to holders of record March 15.

FORT WAYNE & JACKSON.—5½% preferred, $2.75, semiannual, payable March 2 to holders of record February 20.

GULF, MOBILE & OHIO.—common, 50¢, quarterly, payable March 12 to holders of record February 17; $5 preferred, quarterly, payable September 10 to holders of record August 17.

MAINE CENTRAL.—5% preferred, accumulation, $1.25, payable March 1 to holders of record February 16.

MINNEAPOLIS & ST. LOUIS.—35¢, quarterly, payable March 15 to holders of record March 1.

PITTSBURGH, FORT WAYNE & CHICAGO.—common, $1.75, quarterly, payable April 2 to holders of record March 9; 7% preferred, $1.75, quarterly, payable April 3 to holders of record March 9.

PITTSBURGH & WEST VIRGINIA.—50¢, quarterly, payable March 15 to holders of record February 17.

PITTSBURGH, YOUNGSTOWN & ASHTABULA.—7% preferred, $1.75, quarterly, payable March 1 to holders of record February 20.

Railway Officers

BALTIMORE & OHIO.—**William H. Ball,** assistant treasurer at New York, has been elected treasurer at Baltimore, Md., succeeding **W. R. Bixler,** who retired February 1. **John S. Hyman,** transfer agent in the executive offices at New York, succeeds Mr. Ball as assistant treasurer there.

James T. Lean, general freight agent at Pittsburgh, has been named freight traffic manager, sales and service (system) at Baltimore. **Paul K. Groninger,** assistant general freight agent at Cleveland, replaces Mr. Lean as general freight agent at Pittsburgh. **C. P. Mabie,** assistant general freight agent at Chicago, has been transferred to Cleveland to succeed Mr. Groninger. **John J. Collins** and **J. Stanley Lowe,** assistants to freight traffic manager at Baltimore, have been named general freight agent and assistant general freight agent, respectively, of sales and service (system), at that point. **Stephen I. Thompson,** assistant to coal traffic manager at Baltimore, has been promoted to assistant coal traffic manager there. **R. W. Balding** and **Albert W. Nemenz,** coal traffic representatives at Buffalo and Baltimore, respectively, have been named coal freight agents at Buffalo and Philadelphia, respectively, newly created positions.

Eugene J. Kerr has been appointed manager—technical development and will report to the vice-president of research and development. Mr. Kerr has served for the past 10½ years as manager of technical services, coal traffic department.

CANADIAN NATIONAL.—**Ernest B. Meyers** has been appointed chief internal auditor, with jurisdiction over internal audit of disbursements accounting for Canadian lines.

George R. Conaway, city passenger agent at Seattle, has been appointed general agent at Minneapolis, succeeding **C. D. Weldon,** whose transfer to Washington, D.C. was announced in *Railway Age,* January 23, page 49.

Douglas V. Lacombe has been appointed public relations representative, Atlantic region, at Moncton, N.B., succeeding **Frank R. Sayer,** who retires March 31 after nearly a half century of railroad service.

R. G. Chestnut has been appointed assistant to vice-president—organization at Montreal and will direct the employee relations section of this department. The position of special assistant, formerly held by Mr. Chestnut, has been abolished. **E. K. House,** superintendent, Edson division, at Edson, Alta., has been appointed employee relations assistant.

CHESAPEAKE & OHIO.—As reported in *Railway Age,* January 23, page 49, **G. C. Whitlow** has been appointed assistant vice-president—rates at Cleveland, and **B. N. Maier** has been named assistant vice-president—sales at Detroit.

Mr. Whitlow was born in Southampton County, Va., and joined the C&O at Richmond in 1922. He was appointed assistant general freight agent there in 1942, and assistant freight traffic manager in 1946. In March 1954 he became assistant to vice-president—rates at Cleveland.

Mr. Maier was born in Fond du Lac county, Wis., and entered railroad service in 1914 with the Milwaukee at Chilton, Wis. He joined the C&O at Milwaukee in 1920 and, after serving in various other capacities, became freight traffic manager at Detroit in February 1947, which position he held until his recent promotion.

C. B. Porter, assistant chief engineer, Southern region, at Richmond, Va., has been appointed assistant to vice-president—construction and maintenance, at Huntington, W.Va. **D. O. Ashworth,** assistant auditor of expenditures at Richmond, has been named assistant to general superintendent—costs, and **J. T. Ford,** has been appointed assistant to general auditor—operations accounting, both at Huntington. **C. J. Adams** has been named assistant personnel officer—training, and **E. A. Randlette** has been appointed assistant superintendent—costs, both at Richmond.

D. E. Lehman, assistant division superintendent at Saginaw, has become superintendent of terminals at Flint, Mich.

J. E. Lynch has been appointed supervisor of roadway machines and equipment at Grand Rapids. **W. J. Peters** and **C. I. Estler** have been named supervisor and assistant supervisor of roadway machines and equipment, respectively, at Saginaw.

C. N. Page, assistant general freight agent at Columbus, Ohio, has been appointed assistant freight traffic manager at Cincinnati. **Charles R. Sargent** has become assistant freight traffic manager at Chicago. **W. G. Stigall, W. F. Michie** and **S. O. Youngquist** are the new general agents at Louisville, Ky.; Wilmington, N.C. and Flint, Mich., respectively. **R. C. Hilsheimer,** commercial agent at Chicago, has been named assistant general freight agent at Columbus.

K. K. Blyth has been appointed assistant general freight agent at Detroit, Mich., succeeding **C. W. Campbell,** who has been promoted to assistant freight traffic manager at that point. **E. F. Kessler,** assistant freight traffic manager at Cincinnati, retired January 31. **K. M. Hanley** has been named division freight agent at Chatham, Ont.

George Roach and **John J. Bailey** have been named assistant general manager and manager, respectively, in the World Commerce Department at New York. Mr. Roach succeeds **John H. Becker,** who retired January 31.

W. E. Humphreys has been appointed shop scheduling engineer at Russell, Ky. The position of master mechanic at Ashland, Ky., formerly held by Mr. Humphreys, has been abolished. **M. L. Mahone** has been named assistant shop scheduling engineer at Clifton Forge, Va.

L. H. Lucas has been appointed trainmaster at Russell, succeeding **William Fite,** retired.

(Continued on page 42)

William H. Ball

James T. Lean

G. C. Whitlow

B. N. Maier

Questions and Answers

Of current interest — *to the Transportation Department*

What are the duties of a trainmaster? Are they the same today as they were 30-35 years ago . . . ?

L. F. Loree, in his book "Railroad Freight Transportation," published some years ago, outlined the duties of a trainmaster as follows:

"The trainmaster is an outside man. He has no office duties of consequence, but is expected to keep on the road almost constantly, observing locomotive performance under service conditions; studying the work of the trainmen and forming opinions about their fitness, and acting generally as the eyes and ears of the superintendent. The work of the mechanical department and that of the transportation department are intimately allied and the trainmaster is the expert observer for both, although reporting to the division superintendent. The units of the transportation service are the station force, the yard crew and the train crew. Sometimes all, and always two of these fall under his immediate control."

[*Railway Age* asked three railroad officers if they considered Mr. Loree's resume of the duties of the trainmaster still applicable. Two of their answers appeared in this column January 30. The third appears here.]

The same today—on the CNR

"On the Canadian National, we have the position of trainmaster. But, in addition there is a position which is not too common south of the border, i.e., that of assistant superintendent. The latter has somewhat more authority than the trainmaster, as well as more responsibility. To put it another way, you might say that the assistant superintendent is a senior trainmaster who acts as the superintendent's right-hand man, and to whom the other trainmasters report. The descriptions of these two positions show that they are very much alike."—*W. T. Wilson, assistant vice-president—personnel, Canadian National.*

Lack of space prevents a complete listing of the "duties," "responsibilities," and "working conditions" attached to the trainmaster job description accompanying Mr. Wilson's letter. A digest of this information appears below. This job description appears pretty much to describe the job of the trainmaster as Mr. Loree saw it.—*G.C.R.*

Duties:

- Maintain a daily check of flow of traffic through and within the territory and discuss operations with the assistant superintendent.
- Suggest changes in routine of yard and train crews to meet changing conditions.
- Ride trains to inspect territory and observe the performance of crews, riding qualities of equipment, conditions along the right-of-way, stations, and freight sheds.
- Make spot checks of trains, engine and yard crews to ensure that they are in possession of rule books, timetables, and standard watches, and that safety and operating rules are observed.
- Ride trains carrying business cars or special parties, and the Sperry car.
- Accompany auxiliary to scene of derailments and direct flow of traffic around the derailment.
- Plan methods of rerailing equipment with least possible damage to equipment, contents and tracks where auxiliary or tool car is not needed.
- Conduct investigations of rule violations, derailments, personal injuries, rough handling, or unsafe practices, and make necessary recommendations.
- Accompany any special movements, including large dimensional loads over the territory as required.
- Maintain a close check on yard and train costs to determine if reductions can be made without adversely affecting efficiency.
- Interview prospective employees.
- Train and instruct staff.
- Make occasional calls on shippers to investigate complaints and develop goodwill.
- Relieve the assistant superintendent in the latter's absence.
- Process correspondence and reports.

Responsibility:

- He must see to the safe, efficient and economical performance of train and yard operations.
- Observance of operating and safety rules and timetable instructions.
- Efficient performance of yard, train and engine crews; also yard and station staffs.
- Proper switching methods.
- Employees reporting periodically for rule instruction and medical examinations.
- Adequacy of assignment of yard and train crews.
- Marshalling of trains in accordance with instructions.
- Placing of perishable traffic for servicing and prompt handling.
- Prompt placing of LCL, team track and industrial cars.
- Snow plows, spreaders and auxiliary equipment being properly pointed and dispatched without delay.

Working conditions:

- He works six days per week.
- He must be available for duty at any time.
- Considerable traveling.
- Frequently exposed to the worst of weather conditions.

•

CONDUCTED By G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, *Railway Age*, 30 Church Street, New York 7.

simple The "Redipak" lubricating pad is a square block of foam neoprene, molded with cored passages and covered with cotton wicking material. It is installed—without any other packing—in the standard journal box without jacking the box.

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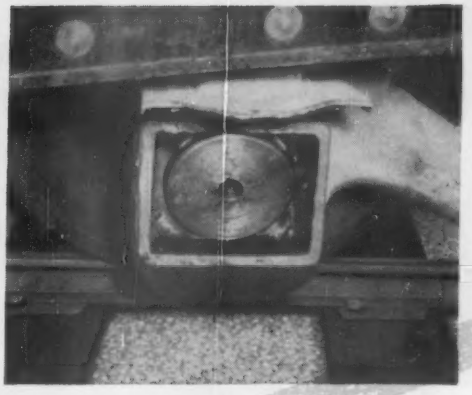

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"Redipak" Lubricating Pad points the way towards elimination of the hot box problem

cool-running The "Redipak" lubricated bearing has operated as much as 50°F. cooler than waste-lubricated bearings, under certain conditions. In laboratory starvation tests, with no free oil in the box, the "Redipak" retained enough oil for 10,000 miles of high speed operation.

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He's responsible, of course, for constructing and maintaining your communication facilities. But his real job is to *build railroad revenues.*

HE CAN DO IT, TOO—with modern high-speed communications.

He may propose an automatic telephone network, throughout the length and breadth of your system. It's a *proved* method of speeding train movements, increasing locomotive hours, and improving service to shippers and travelers. It cuts operating costs, and it builds business!

He may recommend mechanized car-reporting to keep track of freight cars. Or yard communication facilities—or a public-address system for a passenger station (each of these, too, has proved it can pay its way under proper conditions). He will choose from these and dozens of other services available, to meet your specific needs.

And the cost? Probably one of the smallest items in your budget. And remember, it shows up on *both* sides of the ledger! The fact is—adequate communication costs little, but does a BIG job.

Having served America's railroads for 42 years, we can probably answer many of your questions regarding "revenue-building" communications. Simply contact your Automatic Electric representative, or call Automatic Electric Sales Corporation (HAymarket 1-4300), 1033 West Van Buren Street, Chicago 7, Illinois. In Canada: Automatic Electric Sales (Canada) Ltd., Toronto. *Offices in principal cities.*

Mr. L. R. Thomas, Electronics Engineer with Santa Fe reviews a communications problem with an assistant.

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The Buckeye Steel Castings Co.
★ COLUMBUS, O.
★ NEW YORK, N.Y.
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★ ST. PAUL, MINN.

Frank Aikman, Jr., Chief Engineer, The Long Island Railroad describes his road's operation as, "a total of only 356 miles of track carrying in excess of 78 million passengers per year; more than any other railroad in the United States. In addition, it hauls nearly 5 million tons of freight a year. Such density of traffic places an exceptional responsibility upon the maintenance-of-way function. To assure the safety of passengers and freight we have entrusted the inspection of our track to Sperry Rail Service since 1934."

L.I Guards Nation's Most Traveled Tracks with SPERRY RAIL SERVICE

"More than 1200 movements per day pass through Jay Interlocking, just west of Jamaica Station. Even at off-peak hours," Mr. Aikman reports, "track gangs must be able to replace frogs, switch plates or rails within one-half hour maximum headway time. The skill and teamwork of our maintenance crews play a large part in achieving the Long Island's record for safe, efficient operation."

"An observer can get a good idea of the Long Island's traffic density and complex trackage at the Van Wyck Express Way where trains operate on three different levels." Mr. Aikman continues, "Each day 824 passenger trains and 30 freight trains complete scheduled runs over the Long Island System. Track maintenance must be accomplished without interruption of these schedules."

"Our unique traffic pattern requires that much of our rail inspection be done at night during off-peak hours," states Mr. Aikman. "Each year the close cooperation and efficiency of Sperry personnel and equipment make such unusual inspection possible and provide us with vital information concerning the condition of our rail."

Rail-testing requirements of modern railroads are individual and specific. However, the paramount importance of effective inspection of rail in track is recognized by all. To provide the equipment, personnel and experience that can meet this responsibility has always been the primary function of Sperry Rail Service. Write or phone for latest procedures on the testing of rail in track, diesel axles, wheels and similar vital components.

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Danbury, Conn.
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FRIDAY, APRIL 1, 1955
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A Message to Management . . .

One major repair instead of two

After 18 years of service . . . USS COR-TEN Steel lightweight car ready for first major repairs.

Lightweight hopper cars prove the durability of USS COR-TEN Steel construction

Shown above is one of 50 lightweight 70-ton hopper cars purchased by the Duluth, Missabi and Iron Range Railway in 1937. These cars were constructed with USS COR-TEN Steel body sheets, ⅛" thick on the sides and ⅜" thick on the floors.

These cars were examined in June, 1950, at which time it was estimated that the side sheets would last 2 more years, and the floors at least 2 to 3 more years. But the cars did better than that.

Now, after 18 years of service hauling mostly coal, limestone and general steel mill lading, the body sheets of these cars are being replaced for the first time.

We consider this exceptionally good performance, especially when you contrast it with hopper cars built of heavier carbon steel sheets (⅜" thick sides and ¼" thick floors) which in similar service on this railroad lasted only 7 to 8 years.

Ready for at least 18 years more service . . . after rebuilding with USS COR-TEN Steel.

when cars are built of COR-TEN steel

USS COR-TEN Steel's longer life assures big savings in maintenance costs

The continually rising cost of freight car repairs—up 453% since 1932—has brought sharply into focus the need for building or rebuilding freight equipment to secure stronger, more durable body construction that will require the least amount of maintenance.

Construction with USS COR-TEN High Strength Steel provides a practical solution to this problem.

The economic soundness of building with this high strength, corrosion resisting steel has been thoroughly demonstrated. During the past twenty years, leading railroads have established the fact that in hopper cars, for example, every additional dollar spent for USS COR-TEN Steel pays off in a clear saving of from three to six dollars in repair costs.

That's because USS COR-TEN Steel used in the same thicknesses in place of copper steel will increase the life of body sheets by at least 50%.

This means that over the 36 years' normal life of a car you need pay for *only one heavy repair instead of two.* The results are a *clear* saving in maintenance costs of from $800 to $1500 per car, depending on the type, capacity and service conditions.

What's more, by eliminating one heavy repair, your time-out-of-service, waiting for repairs, is cut in half. This will provide substantial additional savings when you consider that the average revenue per serviceable car is now $11.33 per day.

Profit-building advantages like these are the reasons why many American railroads are continually increasing their use of USS COR-TEN Steel, both for new equipment and for repairs. We welcome the opportunity to show you how this performance-tested steel can be used to pay equally desirable dividends in your equipment.

See "THE UNITED STATES STEEL HOUR"—Televised alternate weeks—Consult your newspaper for time and station.

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COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO • NATIONAL TUBE DIVISION, PITTSBURGH
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Single and Double Roller SIDE BEARINGS

Sturdy.. with Ample Capacity

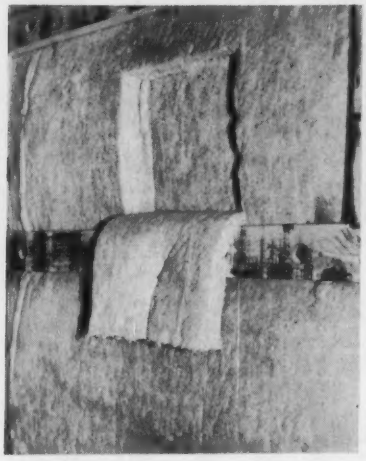
The ideal type of bearing between truck and body bolsters. Frictionless, with sufficient travel to negotiate the sharpest curve. Never out of position. The oblique roller causes a counterbalanced action that keeps it centered when not in use.

Available in several models, single or double roller . . . for replacement parts or new car construction. Wine Side Bearings are made of durable, corrosion-resistant cast steel.

Write for complete information.

THE WINE RAILWAY APPLIANCE CO. • TOLEDO 9, OHIO

What's New in Products

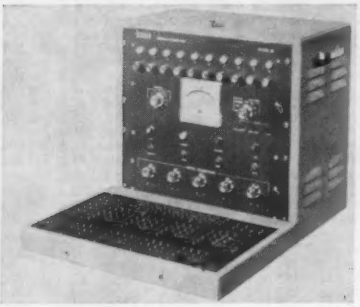


Refrigerator Car Insulation

Rigorous and extended tests of Fiberglas Aerocor insulation installed in two refrigerator cars have been concluded. Opening of the cars revealed the Aerocor to be in perfect condition, according to the manufacturer of the insulation. The Aerocar was resilient, fluffy and bone dry.

URTX car 37998, built by the General American Transportation Corporation in July 1950, was opened in Chicago, and FGEX car 39540, constructed by The Fruit Growers Express Company in October 1949, was opened in Alexandria, Va. Both are ice-bunker refrigerator cars and the Aerocor was installed in sidewalls, ceilings and ends. The Aerocor had not settled.

Fiberglas insulations are being used increasingly for thermal and acoustical purposes in railroad rolling stock and for infestation control in box cars, according to Owens-Corning. In the Bishop System of infestation control, Fiberglas wool is installed in ends and sidewalls of cars to protect grain, flour and other food products which attract insects. *Owens-Corning Fiberglas Corporation, Toledo 1* •



Electronic Slide Rule

An electronic slide rule, said to have many railroad applications, has just been announced. The new instrument, a desk top analog computer, can be used by engineers for solving complex dynamic and static problems. Suggested railroad applications include computation of wave filter design for carrier telephone and telegraph circuits; calculation of radio, microwave and wire line transmission losses; study of action of passenger-car springing; and computing tractive force of a locomotive under variable load and track conditions.

To increase availability of the instrument, plug-in problem boards are used. While one engineer is using the computer, another may be setting up a problem on a problem board to plug into the instrument when it becomes available. An engineer can use the computer after only eight hours of training, the manufacturer says. *Donner Scientific Company, 2829 Seventh St., Berkeley 10, Cal.* •

Maneuverable Fork Truck

A 3,000-lb capacity fork truck, featuring a short wheelbase and 360-deg steering to permit maneuvering in narrow aisles and inside truck trailers and box cars, has been introduced by the Elwell-Parker Electric Co. Named the "Cargo-Scout," the new truck offers stand-up end control as an aid for operators who must get on and off the truck frequently. The steering mechanism is equipped with a special device to prevent steering wheel kickback. *Elwell-Parker Electric Company, Cleveland 3* •

Car Lining

Glid-Iron, a 100 percent solid resin coating, has been field-tested by several railroads for maintaining and upgrading freight car floors and walls. It offers substantial maintenance savings with an upgrading cost estimated at $60 to $75 for a 10 by 40-ft freight-car floor.

Glid-Iron may be applied by spray, brush, roller or squeegee in any mil thickness, and from 1/16 to 1/2 in. Application time is 20 to 30 min with an undercoating gun and two to four man-hours by other methods. The new coating is capable of smoothing out and bridging small cracks. It adheres to wood and primed metal, setting to a hard, tough, flexible and scuff resistant finish after curing overnight at normal room temperatures.

The product is said to have outstanding resistance to shock and impact, showing no adverse effects from the extremely heavy weights and rough abuse by materials handling lift-trucks and other mechanized equipment.

Glidden research technicians report Glid-Iron will withstand extreme temperature ranges—from 20 deg below zero up to 212 deg F. The floor coating is said to be skid-proof even when wet with rain or snow, and nails may be driven through the film without chipping.

Glid-Iron may be had in any color. *Glidden Company, Cleveland* •

Freight Operating Statistics of Large Railways—Selected Items

Region, Road and Year		Miles of road operated	Train-miles	Locomotive-Miles: Principal and helper	Locomotive-Miles: Light	Car-Miles: Loaded (*thousands*)	Car-Miles: Per cent loaded	Ton-miles (*thousands*): Gross excl. locos & tenders	Ton-miles (*thousands*): Net rev. and non-rev.	Road-locos. on line: Serviceable: Unstored	Road-locos. on line: Serviceable: Stored	Road-locos. on line: B.O.	Road-locos. on line: per cent B.O.
New Eng. Region													
Boston & Maine	1955	1,563	246,140	252,223	10,491	9,529	64.8	691,966	247,886	62	..	1	1.6
	1954	1,627	245,049	249,385	8,434	8,676	65.3	571,797	232,971	72	1	5	6.4
N. Y., N. H. & Htfd.	1955	1,746	287,908	288,362	17,854	11,569	68.2	709,935	293,285	98	..	8	7.5
	1954	1,746	249,352	249,422	18,241	10,853	68.6	663,537	274,171	90	..	4	4.3
Great Lakes Region													
Delaware & Hudson	1955	792	180,580	185,675	6,235	9,633	69.6	658,609	344,405	35	1	5	7.7
	1954	793	186,232	191,958	10,123	8,913	65.4	630,101	319,502	39	..	6	13.3
Del., Lack. & Western	1955	962	298,249	310,747	20,690	12,698	69.7	811,413	357,623	62	..	1	1.6
	1954	962	258,141	272,403	19,967	11,677	65.5	766,077	331,185	62	..	2	3.1
Erie	1955	2,224	607,125	613,227	21,874	33,179	68.8	2,048,035	824,205	164	..	2	1.2
	1954	2,225	541,050	544,413	17,447	30,532	67.4	1,880,863	733,193	160	..	4	2.4
Grand Trunk Western	1955	952	287,482	292,162	2,448	8,989	60.5	646,969	261,687	53	..	20	27.4
	1954	952	228,986	235,447	1,720	7,659	60.6	544,211	220,191	55	9	16	20.0
Lehigh Valley	1955	1,137	217,985	221,561	8,454	10,787	65.9	752,742	353,539	33	..	1	2.9
	1954	1,150	207,028	210,667	6,846	10,223	65.1	697,838	314,568	31	2	1	2.9
New York Central	1955	10,661	2,639,199	2,680,631	122,296	105,370	60.9	7,776,727	3,443,545	577	2	81	12.3
	1954	10,663	2,280,111	2,304,945	76,510	92,159	59.0	6,763,236	2,958,534	524	182	92	11.5
New York, Chic. & St. L.	1955	2,154	763,801	787,167	5,872	31,777	64.8	2,231,643	1,007,882	171	1	23	11.8
	1954	2,161	694,774	716,899	6,470	27,425	63.6	1,929,607	860,321	147	27	47	21.3
Pitts. & Lake Erie	1955	221	63,255	63,527	240	2,944	71.9	247,971	157,962	14	..	..	..
	1954	221	51,922	51,922	....	2,339	64.0	204,798	124,568	18	7	..	..
Wabash	1955	2,381	552,363	554,760	6,280	24,934	65.4	1,617,642	619,608	105	..	..	..
	1954	2,381	510,602	510,957	7,203	22,718	65.2	1,474,942	565,618	103	..	..	..
Central Eastern Region													
Baltimore & Ohio	1955	6,072	1,694,534	1,884,402	184,413	65,438	62.9	5,285,247	2,575,894	442	3	94	17.4
	1954	6,077	1,428,153	1,562,350	143,702	57,009	61.2	4,369,699	2,075,434	422	43	109	19.0
Bessemer & Lake Erie	1955	208	53,916	56,806	148	2,792	63.1	326,383	214,550	15	1	..	..
	1954	209	31,975	32,892	82	1,354	65.5	140,433	88,036	10	5	..	..
Central RR Co. of New Jersey	1955	613	122,336	123,228	6,192	4,699	68.3	343,905	182,472	67	..	4	5.6
	1954	613	123,582	124,343	5,753	4,487	64.3	345,575	178,766	59	2	5	7.6
Chicago & Eastern Ill.	1955	868	131,576	131,576	2,435	5,285	66.8	371,270	182,373	29	..	1	3.3
	1954	868	123,666	123,666	2,879	5,760	65.4	358,847	195,930	27	..	2	6.9
Elgin, Joliet & Eastern	1955	236	91,180	91,169	6	2,789	62.3	230,432	125,360	38	..	4	9.5
	1954	236	73,623	73,888	....	2,314	61.8	187,945	100,387	34	7	2	4.7
Pennsylvania System	1955	9,892	3,070,460	3,277,340	252,576	128,279	65.8	9,228,100	4,386,516	892	5	422	32.0
	1954	9,906	2,629,989	2,810,854	199,065	113,084	64.2	8,114,269	3,774,822	733	267	401	28.6
Reading	1955	1,303	353,466	355,452	14,069	13,804	64.8	1,095,965	590,696	159	2	33	17.0
	1954	1,304	314,576	319,437	12,132	11,543	61.0	971,595	507,493	158	21	24	11.8
Western Maryland	1955	846	170,068	177,397	10,559	6,941	63.8	582,983	332,123	37	..	..	..
	1954	852	154,238	158,802	7,239	5,840	63.2	483,993	269,493	37	11	1	2.0
Pocahontas Region													
Chesapeake & Ohio	1955	5,041	1,572,981	1,594,548	45,867	66,877	55.8	5,871,461	3,295,300	460	1	109	19.1
	1954	5,063	1,257,174	1,274,738	34,662	51,147	55.4	4,421,061	2,399,518	320	51	195	34.4
Norfolk & Western	1955	2,104	743,083	788,316	61,224	35,455	58.4	3,278,606	1,799,467	226	13	22	8.4
	1954	2,110	629,896	671,754	56,495	29,769	57.5	2,754,381	1,487,244	212	29	33	12.0
Southern Region													
Atlantic Coast Line	1955	5,278	839,292	839,298	9,595	25,636	59.2	1,893,414	869,602	229	..	7	3.0
	1954	5,340	759,718	759,724	8,483	22,765	57.1	1,702,250	759,602	237	..	8	3.3
Central of Georgia	1955	1,731	200,318	200,344	1,866	8,092	67.4	561,917	270,606	74	..	3	3.9
	1954	1,731	187,541	187,566	2,480	7,327	66.8	506,344	239,813	70	..	2	2.8
Gulf, Mobile & Ohio	1955	2,717	278,503	278,503	357	15,721	68.0	1,081,435	509,433	84	..	7	7.7
	1954	2,718	268,971	268,971	223	14,807	68.6	1,001,299	471,943	84	..	5	5.6
Illinois Central	1955	6,531	1,318,312	1,319,460	39,944	52,841	61.8	3,940,091	1,847,780	414	9	152	26.4
	1954	6,539	1,269,905	1,272,424	41,168	48,169	60.6	3,585,325	1,636,284	443	89	139	20.7
Louisville & Nashville	1955	4,714	928,062	936,958	18,968	33,739	60.7	2,590,011	1,319,943	184	5	30	13.7
	1954	4,713	852,293	857,055	16,959	30,663	59.6	2,351,649	1,168,192	241	41	9	3.1
Nash., Chatt. & St. Louis	1955	1,043	173,498	177,539	3,601	5,652	67.9	381,698	180,163	49	..	4	7.5
	1954	1,043	174,367	177,865	3,833	5,803	70.3	374,687	174,082	48	..	5	9.4
Seaboard Air Line	1955	4,053	620,622	620,622	2,024	25,123	65.0	1,773,122	835,120	146	..	10	6.4
	1954	4,053	583,266	583,266	62	23,336	62.2	1,688,270	760,544	141	..	7	4.7
Southern	1955	6,264	918,000	918,060	12,227	43,999	68.5	2,844,179	1,313,179	281	..	5	1.7
	1954	6,262	932,539	932,614	11,531	40,576	65.7	2,678,793	1,204,021	281	..	2	.7
Northwestern Region													
Chicago & North Western	1955	7,791	786,119	788,843	10,462	32,091	63.2	2,236,961	962,730	152	11	35	17.7
	1954	7,850	713,503	715,910	10,356	29,889	65.3	2,013,355	911,615	145	40	44	19.2
Chicago Great Western	1955	1,437	132,074	132,074	223	8,002	70.0	523,188	237,567	32	..	1	3.0
	1954	1,437	132,143	132,261	323	7,513	69.3	498,569	227,400	31	..	2	6.1
Chic., Milw., St. P. & Pac.	1955	10,633	1,060,127	1,076,802	22,216	44,676	64.0	3,047,945	1,334,862	291	31	24	6.9
	1954	10,632	980,782	993,807	20,922	42,120	64.0	2,870,398	1,266,875	311	38	57	14.0
Chic., St. P., Minn. & Omaha	1955	1,606	162,011	163,442	4,389	5,393	63.6	384,708	167,417	54	..	15	21.7
	1954	1,606	160,252	161,535	4,465	5,535	72.3	367,085	168,237	59	3	19	23.5
Duluth, Missabe & Iron Range	1955	569	110,725	110,838	728	4,640	51.1	432,078	239,975	60	..	11	15.5
	1954	567	43,991	44,158	837	1,216	51.5	110,208	59,126	29	35	8	11.1
Great Northern	1955	8,272	1,232,341	1,239,319	41,793	45,612	64.4	3,361,096	1,596,395	278	55	34	9.3
	1954	8,295	1,094,992	1,101,204	31,373	44,829	64.8	3,156,996	1,425,439	234	175	52	11.3
Minneap., St. P. & S. Ste. M.	1955	4,171	392,646	394,458	1,812	16,514	66.1	1,146,388	524,170	80	10	5	5.3
	1954	4,169	378,750	381,460	2,760	13,255	69.9	807,376	363,144	96	..	18	15.8
Northern Pacific	1955	6,570	836,352	850,646	23,347	33,225	70.2	2,218,908	1,027,321	255	31	69	19.4
	1954	6,570	833,032	854,644	23,039	32,133	65.7	2,229,178	1,007,429	284	25	65	17.4
Central Western Region													
Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1955	13,097	2,611,503	2,734,544	81,795	118,178	62.4	8,102,594	2,989,495	535	84	29	4.5
	1954	13,076	2,317,588	2,407,497	58,283	104,532	63.9	7,073,933	2,626,221	515	101	32	4.9
Chic., Burl. & Quincy	1955	8,773	1,186,266	1,180,852	37,112	50,299	66.6	3,302,104	1,406,067	227	24	37	12.8
	1954	8,824	1,230,029	1,232,427	37,522	48,940	62.7	3,317,526	1,398,742	296	7	33	9.8
Chic., Rock I. & Pac.	1955	7,903	861,229	862,322	2,046	34,864	62.1	2,490,557	1,048,352	169	1	5	2.9
	1954	7,907	837,745	833,391	691	32,257	61.9	2,288,036	945,030	164	7	4	2.3
Denver & R. G. Wn.	1955	2,165	331,553	355,079	37,571	15,497	67.6	1,084,310	510,317	70	10	24	23.1
	1954	2,165	318,232	339,514	32,845	14,341	68.5	1,023,729	480,980	70	35	35	25.0
Southern Pacific	1955	8,065	2,274,521	2,357,629	173,535	97,950	62.5	6,805,520	2,764,795	623	34	105	13.8
	1954	8,063	2,089,748	2,199,990	254,900	91,570	62.6	6,334,754	2,570,167	615	30	134	17.2
Union Pacific	1955	9,809	2,621,052	2,674,508	115,190	113,408	65.0	7,590,026	3,108,772	477	51	135	20.4
	1954	9,816	2,519,730	2,570,922	119,545	109,032	63.8	7,323,475	2,956,171	463	201	138	17.2
Western Pacific	1955	1,190	277,408	292,668	15,314	11,723	65.9	783,348	334,646	45	..	1	2.2
	1954	1,190	223,943	228,516	11,945	9,888	68.5	645,101	292,227	39	5	2	4.3
Southwestern Region													
International-Gt. Northern*	1955	1,104	134,523	134,523	....	5,553	63.1	414,600	189,101	39	..	3	7.1
	1954	1,103	122,032	122,032	57	5,268	65.4	373,981	174,751	42	..	2	4.6
Kansas City Southern	1955	886	155,628	155,898	229	8,921	68.2	637,028	292,613	27	..	3	10.0
	1954	886	134,045	134,045	233	7,439	65.0	531,024	231,743	25	..	2	7.4
Mo.-Kans.-Texas Lines	1955	3,230	335,664	335,664	3,423	14,820	66.1	964,710	418,724	87	..	..	..
	1954	3,229	341,105	341,105	3,869	13,609	63.9	890,262	369,014	85	..	..	..
Missouri Pacific*	1955	6,892	1,006,503	1,006,503	10,748	45,009	64.6	3,123,763	1,363,671	241	29	39	12.6
	1954	6,896	951,822	951,826	11,064	41,648	64.6	2,883,894	1,284,914	200	47	98	28.4
Texas & Pacific	1955	1,822	334,302	334,302	3,206	16,400	64.6	1,150,287	451,582	62	..	1	1.6
	1954	1,822	325,435	325,435	3,022	13,872	60.3	1,026,497	385,687	57	..	5	8.1
St. Louis-San Francisco	1955	4,573	611,607	611,607	5,863	25,292	67.4	1,665,719	746,718	111	..	11	9.0
	1954	4,564	591,253	591,253	5,624	23,298	63.4	1,586,993	684,574	111	..	5	4.3
St. Louis Southw. Lines	1955	1,554	325,827	325,881	1,549	15,561	72.7	961,029	429,593	55	..	10	15.4
	1954	1,555	281,827	281,833	1,341	12,913	71.0	796,076	355,857	56	5	12	16.4
Texas & New Orleans	1955	4,303	730,926	730,926	4,522	28,386	63.1	1,999,399	863,907	139	..	3	2.1
	1954	4,275	663,977	663,977	12,901	25,877	63.7	1,802,659	776,075	141	..	34	19.4

For the Month of November 1955 Compared with November 1954

Region, Road and Year		Freight cars on line: Home	Foreign	Total	Per Cent B.O.	G.t.m.per train-hr. excl.locos and tenders	G.t.m.per train-mi. excl.locos and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Car-miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region	Boston & Maine 1955	1,758	8,996	10,754	5.1	38,617	2,531	1,009	26.0	719	42.7	5,287	15.3	150.3
	1954	2,473	8,061	10,543	4.8	37,190	2,359	953	26.8	744	42.4	4,773	15.9	124.2
	N. Y., N. H. & Htfd. 1955	1,782	19,033	20,815	2.0	37,783	2,466	1,019	25.4	433	25.1	5,599	15.3	121.1
	1954	2,725	14,428	17,153	3.2	42,087	2,661	1,100	25.3	541	31.2	5,234	15.8	117.9
Great Lakes Region	Delaware & Hudson 1955	2,469	5,419	7,888	4.9	65,403	3,663	1,915	35.8	1,345	54.1	14,495	17.9	176.6
	1954	6,113	4,310	10,423	6.2	62,473	3,398	1,723	35.8	1,039	44.3	13,430	18.5	164.7
	Del., Lack. & Western 1955	3,461	12,919	16,380	2.9	48,169	2,771	1,221	28.2	736	37.5	12,392	17.7	193.9
	1954	6,990	9,630	16,620	4.1	51,328	3,021	1,306	28.4	654	35.2	11,476	17.3	166.7
	Erie 1955	7,111	19,304	26,415	3.8	64,396	3,401	1,369	24.8	990	58.0	12,353	19.1	141.7
	1954	12,798	15,541	28,339	5.1	66,591	3,507	1,367	24.0	853	52.7	10,984	19.2	128.2
	Grand Trunk Western 1955	3,700	10,235	13,935	7.5	47,380	2,273	920	29.1	628	35.7	9,163	21.1	146.7
	1954	4,406	8,788	13,196	6.1	47,496	2,388	966	28.7	577	33.1	7,710	20.0	104.6
	Lehigh Valley 1955	6,882	9,707	16,589	3.9	70,893	3,521	1,654	32.8	708	32.7	10,365	20.5	237.6
	1954	9,004	7,400	16,404	3.8	69,374	3,400	1,533	30.8	632	31.6	9,118	20.6	227.5
	New York Central 1955	47,065	104,253	151,318	3.7	49,952	2,992	1,325	32.7	755	38.0	10,767	17.0	153.6
	1954	72,605	84,453	157,058	8.2	51,188	3,013	1,318	32.1	632	33.4	9,249	17.3	111.0
	New York, Chic. & St. L. 1955	6,564	18,896	25,460	5.5	50,373	3,001	1,355	31.7	1,300	63.3	15,597	17.2	148.7
	1954	9,751	13,595	23,346	8.1	49,846	2,828	1,261	31.4	1,180	59.1	13,270	17.9	120.3
	Pitts. & Lake Erie 1955	1,925	10,182	12,107	2.3	59,824	3,937	2,508	53.7	443	11.5	23,825	15.3	165.8
	1954	8,064	5,805	13,869	11.1	59,088	3,966	2,412	53.3	290	8.5	18,789	15.0	76.7
	Wabash 1955	8,775	10,639	19,414	5.0	62,995	2,943	1,127	24.8	1,060	65.2	8,674	21.5	189.6
	1954	8,866	10,392	19,258	8.9	64,422	2,907	1,115	24.9	979	60.3	7,918	22.3	177.1
Central Eastern Region	Baltimore & Ohio 1955	43,305	47,160	90,465	7.6	48,790	3,172	1,546	39.4	987	39.8	14,141	15.6	133.7
	1954	56,098	37,808	93,906	15.4	47,876	3,099	1,472	36.4	717	32.2	11,384	15.6	102.0
	Bessemer & Lake Erie 1955	2,597	1,152	3,749	17.5	98,724	6,301	4,142	76.8	1,830	37.7	34,383	16.3	133.2
	1954	7,238	648	7,886	15.2	61,324	4,617	2,894	65.0	406	9.5	14,041	14.0	85.5
	Central RR Co. of New Jersey 1955	2,304	10,243	12,547	7.9	41,112	2,912	1,545	38.8	476	18.0	9,922	14.6	88.3
	1954	5,399	9,542	14,941	11.7	39,937	2,913	1,507	39.8	394	15.4	9,721	14.3	91.6
	Chicago & Eastern Ill. 1955	2,587	3,635	6,222	7.1	49,234	2,835	1,392	34.5	983	42.6	7,004	17.4	156.4
	1954	3,245	3,445	6,690	5.4	48,598	2,911	1,589	34.0	1,017	45.7	7,524	16.7	151.6
	Elgin, Joliet & Eastern 1955	6,800	9,912	16,712	4.4	20,399	2,670	1,452	44.9	253	9.0	17,706	8.1	100.4
	1954	7,602	6,908	14,510	8.6	23,206	2,653	1,417	43.4	235	8.8	14,179	9.1	76.5
	Pennsylvania System 1955	94,585	100,195	194,780	8.2	51,631	3,108	1,477	34.2	749	33.3	14,781	17.2	99.0
	1954	115,421	88,286	203,707	14.1	54,708	3,168	1,474	33.4	618	28.8	12,702	17.7	78.0
	Reading 1955	10,863	21,480	32,343	4.1	48,071	3,101	1,672	42.8	611	22.0	15,111	15.5	75.6
	1954	20,135	16,619	36,754	6.5	45,737	3,089	1,614	44.0	482	18.0	12,973	14.8	65.7
	Western Maryland 1955	4,836	4,774	9,610	2.9	49,364	3,509	1,999	47.8	1,178	38.6	13,086	14.4	186.4
	1954	6,686	2,884	9,570	2.9	46,533	3,203	1,784	46.1	956	32.8	10,544	14.8	93.9
Pocahontas Region	Chesapeake & Ohio 1955	46,442	35,007	81,449	1.2	69,467	3,760	2,110	49.3	1,331	48.4	21,790	18.6	105.3
	1954	57,848	25,509	83,357	5.4	66,204	3,528	1,915	46.9	981	37.7	15,798	18.8	83.7
	Norfolk & Western 1955	31,725	9,834	41,559	1.6	75,662	4,526	2,484	50.8	1,473	49.7	28,509	17.1	117.8
	1954	38,339	6,997	45,336	2.1	75,064	4,470	2,414	50.0	1,137	39.5	23,495	17.2	96.1
Southern Region	Atlantic Coast Line 1955	17,649	18,128	35,777	4.3	41,460	2,271	1,043	33.9	826	41.2	5,492	18.4	131.3
	1954	21,031	13,672	34,703	2.9	39,933	2,250	1,004	33.4	732	38.4	4,742	17.8	115.7
	Central of Georgia 1955	2,405	6,711	9,116	3.9	47,568	2,811	1,354	33.4	948	42.1	5,211	17.0	94.6
	1954	3,273	5,484	8,757	5.4	47,247	2,715	1,286	32.7	881	40.3	4,618	17.5	95.9
	Gulf, Mobile & Ohio 1955	5,175	11,439	16,614	3.0	73,011	3,888	1,832	32.4	1,016	46.1	6,250	18.8	110.7
	1954	5,924	8,817	14,741	2.7	73,452	3,728	1,757	31.9	1,052	48.1	5,788	19.7	108.7
	Illinois Central 1955	23,289	29,950	53,239	1.9	47,984	3,033	1,423	35.0	1,112	51.5	9,431	16.1	85.4
	1954	29,999	22,019	52,018	2.4	46,622	2,856	1,304	34.0	1,027	49.9	8,341	16.5	71.1
	Louisville & Nashville 1955	27,307	14,055	41,362	3.3	47,137	2,789	1,426	39.1	1,077	45.4	9,333	16.9	161.7
	1954	37,701	11,731	49,432	3.7	48,376	2,766	1,374	38.1	827	36.5	8,262	17.5	108.7
	Nash., Chatt. & St. Louis 1955	3,226	3,188	6,414	4.5	41,030	2,201	1,039	31.9	937	43.3	5,758	18.6	126.2
	1954	3,704	3,310	7,014	1.4	42,409	2,155	1,001	30.0	836	39.6	5,564	19.7	122.4
	Seaboard Air Line 1955	11,527	16,184	27,711	2.6	52,556	2,906	1,369	33.2	1,015	46.9	6,868	18.4	165.3
	1954	14,116	12,860	26,976	2.6	53,077	2,933	1,321	32.6	933	46.0	6,255	18.3	157.0
	Southern 1955	14,004	27,705	41,709	3.5	52,898	3,108	1,435	29.8	1,046	51.2	6,988	17.1	118.0
	1954	18,791	26,332	45,123	4.6	49,546	2,879	1,294	29.7	895	45.9	6,409	17.2	121.8
Northwestern Region	Chicago & North Western 1955	15,738	30,112	45,850	4.7	52,072	2,903	1,249	30.0	675	35.6	4,119	18.3	145.8
	1954	18,439	26,245	44,684	4.4	49,663	2,910	1,317	30.5	667	33.5	3,871	17.6	111.5
	Chicago Great Western 1955	1,458	4,077	5,535	3.4	76,067	3,966	1,801	29.7	1,405	67.6	5,511	19.2	139.2
	1954	2,321	3,879	6,200	3.0	74,203	3,777	1,723	30.3	1,265	60.4	5,275	19.7	139.5
	Chic., Milw., St. P. & Pac. 1955	27,388	34,094	61,482	5.4	54,621	2,885	1,264	29.9	723	37.8	4,185	19.0	113.0
	1954	34,855	28,558	63,413	6.4	53,841	2,940	1,298	30.1	662	34.4	3,972	18.4	91.6
	Chic., St. P., Minn. & Omaha 1955	1,185	8,040	9,225	2.6	35,536	2,413	1,050	31.0	556	28.2	3,475	15.0	87.7
	1954	1,188	6,956	8,144	4.2	33,808	2,343	1,074	30.4	664	30.2	3,492	14.8	75.9
	Duluth, Missabe & Iron Range 1955	14,264	881	15,145	2.2	70,348	4,125	2,291	51.7	531	20.1	14,058	18.0	61.8
	1954	14,755	600	15,355	1.7	39,887	2,657	1,426	48.6	129	5.2	3,476	15.9	25.3
	Great Northern 1955	20,377	26,041	46,418	2.1	51,813	2,769	1,315	35.0	1,198	53.1	6,433	19.0	124.4
	1954	22,225	23,467	45,692	3.1	55,134	2,909	1,314	31.8	1,045	50.7	5,728	19.1	87.2
	Minneap., St. P. & S. Ste. M. 1955	6,134	8,680	14,814	4.2	62,620	2,948	1,348	31.7	1,158	55.2	4,189	21.4	156.6
	1954	7,485	7,251	14,736	5.0	44,770	2,149	967	27.4	819	42.8	2,904	21.0	119.7
	Northern Pacific 1955	16,281	18,062	34,343	4.9	49,983	2,664	1,234	30.9	990	45.6	5,212	18.8	88.8
	1954	19,761	15,866	35,627	5.2	50,443	2,691	1,216	31.4	926	44.9	5,111	18.9	84.5
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.) 1955	49,406	38,297	87,703	3.1	71,246	3,113	1,149	25.3	1,159	73.4	7,609	23.0	155.4
	1954	55,528	35,295	90,823	3.9	69,782	3,063	1,137	25.1	981	61.2	6,695	22.9	134.5
	Chic., Burl. & Quincy 1955	19,171	25,228	44,399	3.6	58,263	2,789	1,187	28.0	1,057	56.8	5,342	20.9	151.6
	1954	19,214	26,485	45,699	3.2	55,525	2,705	1,140	28.6	1,020	56.9	5,284	20.6	131.1
	Chic., Rock I. & Pac. 1955	11,155	21,610	32,765	5.1	58,253	2,903	1,222	30.1	1,065	57.0	4,422	20.1	172.4
	1954	13,819	17,643	31,462	6.4	53,314	2,736	1,130	29.3	1,016	56.1	3,984	19.5	169.0
	Denver & R. G. Wn. 1955	7,719	8,369	16,088	2.8	58,875	3,278	1,543	32.9	1,067	48.0	7,857	18.0	134.7
	1954	8,627	5,646	14,273	3.5	59,696	3,224	1,515	33.5	1,098	47.8	7,405	18.6	95.3
	Southern Pacific 1955	30,019	54,454	84,473	1.5	57,896	3,020	1,227	28.2	1,132	64.2	11,427	19.3	119.5
	1954	33,993	40,484	74,477	2.0	57,137	3,061	1,242	28.1	1,153	65.6	10,625	18.8	114.4
	Union Pacific 1955	27,119	38,187	65,306	1.7	73,213	2,924	1,198	27.4	1,583	88.8	10,564	25.3	146.9
	1954	30,512	33,297	63,809	2.6	75,298	2,929	1,182	27.1	1,479	85.5	10,039	25.9	114.0
	Western Pacific 1955	2,073	5,156	7,229	1.2	70,808	2,848	1,217	28.5	1,592	84.6	9,374	25.1	226.7
	1954	2,523	3,186	5,709	2.5	73,878	2,896	1,312	29.6	1,731	85.5	8,186	25.6	182.1
Southwestern Region	International-Gt. Northern* 1955	979	6,744	7,723	2.9	64,902	3,090	1,409	34.1	851	39.6	5,710	21.1	112.0
	1954	945	5,565	6,510	3.0	64,247	3,075	1,437	33.2	903	41.6	5,281	21.0	96.6
	Kansas City Southern 1955	913	6,079	6,992	1.6	85,381	4,129	1,897	32.8	1,352	60.4	11,009	20.9	204.5
	1954	1,099	6,157	7,256	3.7	84,558	3,970	1,733	31.2	1,073	53.0	8,719	21.3	182.3
	Mo.-Kans.-Texas Lines 1955	3,667	7,018	10,685	5.2	58,432	2,881	1,251	28.3	1,264	67.7	4,321	20.3	140.3
	1954	5,158	6,243	11,401	7.5	56,020	2,619	1,085	27.1	1,143	66.0	3,809	21.5	144.4
	Missouri Pacific* 1955	15,024	20,072	35,096	2.4	69,686	3,124	1,364	30.3	1,278	65.2	6,595	22.5	118.6
	1954	20,037	18,595	38,632	9.5	66,315	3,037	1,353	30.9	1,079	54.1	6,211	21.9	98.9
	Texas & Pacific 1955	2,562	7,549	10,111	2.2	70,105	3,452	1,355	27.5	1,504	84.6	8,262	20.4	195.6
	1954	3,273	6,386	9,659	3.3	68,097	3,168	1,190	27.8	1,351	80.6	7,056	21.6	190.9
	St. Louis-San Francisco 1955	9,784	12,054	21,838	3.1	54,013	2,732	1,225	29.5	1,130	56.8	5,443	19.8	186.2
	1954	12,137	10,548	22,685	2.6	52,041	2,687	1,159	29.4	1,015	54.5	5,000	19.4	191.1
	St. Louis Southw. Lines 1955	1,848	4,924	6,772	1.3	64,542	2,953	1,320	27.6	2,015	100.5	9,215	21.9	180.3
	1954	2,540	3,831	6,371	2.1	57,441	2,831	1,266	27.6	1,731	88.5	7,628	20.3	143.3
	Texas & New Orleans 1955	5,322	15,957	21,279	1.4	57,298	2,753	1,189	30.4	1,360	70.8	6,692	20.9	183.4
	1954	6,828	14,618	21,446	2.4	55,571	2,731	1,176	30.0	1,226	64.1	6,051	20.5	138.0

* Report of trustee or trustees.

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Where "In and Out" and "Quickies" Won't Work

There are some situations where "quickie" programs or "in and out" schedules will not produce favorable results. This observation is applicable in many places, but perhaps nowhere more so than in problems of public relations. One question about which there seems to be perennial disagreement or misunderstanding among many railroad people is that of how or whether to synchronize public educational work with legislative effort (often called "lobbying") in behalf of improved transportation legislation.

Take, for instance, the long-and-short-haul clause—Section 4 of the Interstate Commerce Act. The enthusiastic campaign to repeal this clause by means of the "Pettengill Bill" back in the thirties will be recalled. In that campaign, which came near to success, legislative effort and the various means of popular education were used simultaneously. But when that campaign failed, the issue was pretty much allowed to drop from sight—until it was revived a few years ago in the Transportation Association of America. Was it sound strategy for both legislative and educational effort in behalf of "fourth section repeal" to remain quiescent for such a long time?

This paper lays no claim to specialized knowledge in the field of legislative strategy—hence has no opinion as to the wisdom or unwisdom of suspending legislative activity in behalf of "fourth section repeal." But if it be conceded that cessation of legislative effort in behalf of repeal was wise, why should educational activity to this end also have been cut off?

Real public opinion, either pro or con, can hardly be said to exist regarding ten or a dozen legislative proposals which are of vital importance to the railroads—and to the public interest in economy in transportation. Most people don't know there is a "fourth section." Many of those who have heard the term do not know what the section provides. Many of those who do know its content understand it to mean "forbidding the railroads to charge more for a short haul than for a longer one." Such a provision, if considered superficially, would strike many people as reasonable and just. There are probably not more than a few thousand (maybe not more than a few hundred) Americans who fully understand the measure and all that it entails.

How long would it take to develop a genuine and informed public opinion, of respectable magnitude, in favor of "fourth section repeal"? One guess is as good as another, but probably the time needed would run into years. Even then, the public opinion thus organized and informed would probably embrace only the "opinion leader" categories—but that would probably be enough. The point is that it is impossible to carry on genuine effective educational endeavor on complex questions of transportation economics on a "quickie" basis. Work now for results a few months from now—this may be, and probably is, a practical working rule for legislative effort (i.e., "lobbying"). But if genuine grass-roots public opinion of any magnitude is going to be needed to accomplish the desired results, then the "quickie" approach just cannot do the job.

Intermittent—"in and out"—educational effort is also a questionable expenditure of time and money. Educational endeavor is cumulative in its effect—like a snowball. If you stop rolling the snowball, it melts. If you want to start the ball rolling again after a lapse of time, you have to start right out at the beginning again.

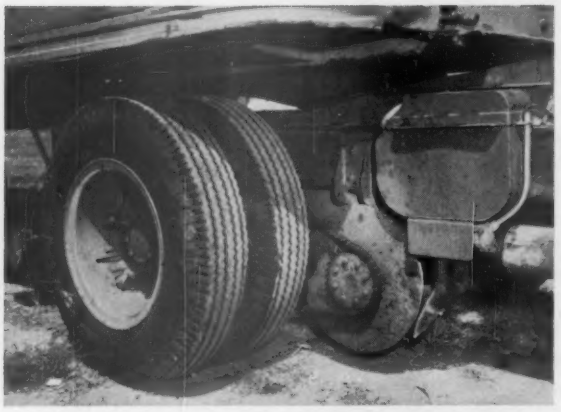
There are ten or a dozen economic issues, wherein railroads are involved with government to their disadvantage and to that of the public interest. If persistent public education—in terms of the public's interest, not of that of the railroads—were going on all the time on all or most of these dozen issues, legislative strategists then could select almost at will among these issues for an immediate legislative objective, if opportune conditions should arise.

There would be much greater economy of money and effort—and probably a higher ratio of success in attainment of objectives—if the essentially different tempo of legislative and public educational programs were more often borne in mind. The one is like a garden hose that can be turned on or off quickly, and aimed at a specific target. The other is like a glacier—which builds up slowly and moves slowly but which, once massively built and in motion, is mighty hard to stop.

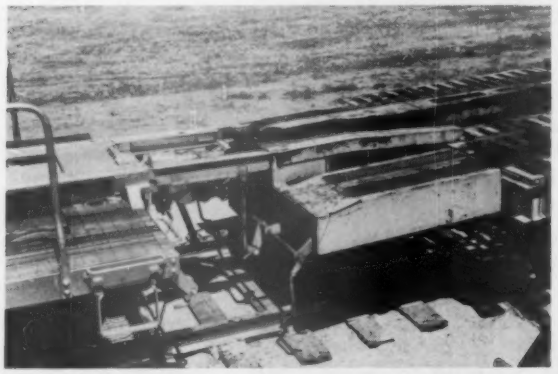
Several years ago the highway people started their large-scale and persistent campaign for a huge federal road-building program. They did not expect immediate results, but they kept at it. Even though they do not even yet have their specific legislation—nobody doubts that they will get it. The only question that remains is one of details.

How KCS Will Expand "Piggyback"

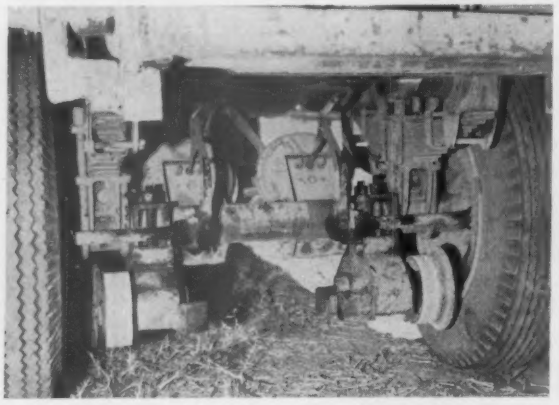
- Equipment to be used
- Why selected
- Points to be served
- Service to be offered



TRACTORS will be equipped with the standard Piggy-Back, Inc., flanged-wheel arrangement driven from the axle by a chain sprocket. As the sprocket drive wheels ride free when the tractor is running on the tires, the same tractor can be used for loading trailers on regular flat cars.



NEW CARS, included in the same train with standard flat cars containing trailers, will be blocked to take advantage of the continuous rails that guide the trailers during loading and unloading. So that the same terminal can handle either type car, the guide ramp for loading the French-type car is on wheels and can be switched out of the way to load conventional flat cars.



TEMPORARY CONVERSION kits adapt common carrier trailers for loading on the cars. The kits are furnished by the KCS, along with the labor for application (one man, 10 minutes).

The Kansas City Southern will approximately double its fleet of trailer-carrying cars and triple its trailer-carrying capacity by the end of 1956. By then the road expects to take delivery from Pullman-Standard of 50 French-type cars designed by Piggy-Back, Inc. (*Railway Age*, Mar. 7, 1955, page 45, and Dec. 5, 1955, pages 9 and 54). The new cars will enable the KCS to expand existing service, supplementing rather than replacing the conventional flat cars currently in use.

The KCS lists three primary reasons for going to the new "guided loading" type car:

1. Shorter tie-down and release times, a reduction from the present 30 man-minutes to 1½ man-minutes.
2. Reduced investment—roughly $11,000 per car vs. $16,000 for a conventional flat car.
3. Savings in equipment maintenance.

Secondary advantages of the new cars, from the KCS viewpoint, are (1) an extra 8 in. of overhead clearance, because the trailer rides lower on the car; (2) less tare weight per trailer (the 79½-ft car weighs the same as conventional flat cars 40 to 53 ft long), and (3) no floor to maintain. While clearance is not a major consideration on the KCS, the extra 8 in. could be of advantage in interchange with more restricted lines.

The new cars are also expected to reduce lading damage—although this is already very low with regular flat cars. In fact, for some commodities, glass as an example, the damage is reported less than in highway movement. The effect on terminal costs cannot be predicted because the current costs cannot be measured. With the present volume, most terminal operations are sandwiched in between regularly assigned duties. It is thought, however, that terminal costs will follow the usual trend in unit railroad costs—down as volume increases.

TOFC operations on the KCS began in September 1954 between Dallas, Shreveport and New Orleans, using 28 flat cars borrowed from the Chicago Great Western. These were 53½-ft cars, long enough to carry two short trailers, but only one of the longer vehicles commonly employed today. As the service was expanded to cover Kansas City, Fort Smith and Beaumont, the KCS equipped 15 system cars with tie-down equipment similar to that on the CGW cars. Future plans call for extending the service to Pittsburg, Kan., and Alexandria and Baton Rouge, La.

TOFC business on the KCS currently runs from 125 to 150 trailers in an average month. Traffic handled involves both local and interline movement. Rates covering this traffic are published in the motor line tariffs and apply both locally and in connection with motor common carriers. A considerable volume of traffic han-

The KCS handles both system and foreign trailers in interchange service with motor common carriers.

dled thus far has been joined with other motor common carriers with both system and foreign trailers used.

Here's an example of how the arrangement works:

A trailer-load is originated by a trucker serving Omaha for movement to Shreveport. It can go to Kansas City either via highway or on a flat car. Beyond, it will move piggyback on the KCS. Division of the revenue between the KCS and the originating truck line is the same as if the KCS were another truck line, which in turn is similar to the division between two railroads when they move a car in interchange.

Return movement of the trailer is similar to that of an empty box car. The KCS attempts to solicit a return load. This may be either through to the trailer's origin (Omaha) or it may be only part way (e.g., the trailer may get a load to Fort Smith, then go on back to Omaha either empty or with a second load if the KCS gets a load at Shreveport in one of its subsidiary trailers for movement to Omaha, a similar procedure is followed except that the role of the principals is reversed. So far there has been little interchange with other railroads of a car complete with trailer.

In general no per diem is paid on trailers. The KCS has a mutual agreement with cooperating truck lines which provides a trailer-for-trailer exchange. In handling trailers of its own subsidiary the KCS gets the line-haul revenue and pays the subsidiary line a charge sufficient to compensate it for services at the terminals.

SAVING TIME AND ENERGY. With the new cars (right), where one man on the side of the car operates the clamping arrangements, both front and rear, the KCS expects to reduce the tiedown and release times from 30 man-minutes to 1½ man-minutes. In addition, the new cars are expected to reduce damage to lading.

RADIO HANDSET and speaker in the locomotive can be behind the engineer within arm's reach so he may call . . .

Why the NKP Uses

On the Buffalo-Chicago main line train to wayside offices, save 10 to places, every day, eliminates guess

The New York, Chicago & St. Louis has adopted train radio to help keep main-line freight trains "on the move," over the 523 miles between Buffalo and Chicago.

Train radio on the NKP eliminates guesswork from many operations, saves time and steps for trainmen, and improves the general coordination of train operation. Regardless of weather or length of train, or of territory that makes it difficult to see hand signals, the engineer and conductor can be in constant communication via radio. After a stop, the conductor radios the engineer when the flagman is back on the caboose. Use of radio saves the conductor long walks to the locomotive when he has to confer with the engineer. Crews can be given advance information, so men do not have to get off the locomotive or caboose to go to wayside phones.

On every trip, train crews find radio to be an aid in performing routine operations. The engineer can warn the crew in the caboose of possible slack action; the rear-end crew can provide the engineer with information to help him get a heavy train started on a grade; the engineer can be told when the switch has been cleared on entering and leaving a siding; and he can be informed when the rear of the train is through a restricted speed zone or beyond a crossover or railroad crossing.

The engineer and conductor of a stopped train confer by radio and take the action necessary to get the train moving. The conductor can take a walkie-talkie set with him as he inspects the train, possibly looking for a hot box.

The engineer on one train may warn the engineer of another train of a dangerous condition ahead, such as children playing near the tracks, or an automobile accident that has blocked a highway crossing.

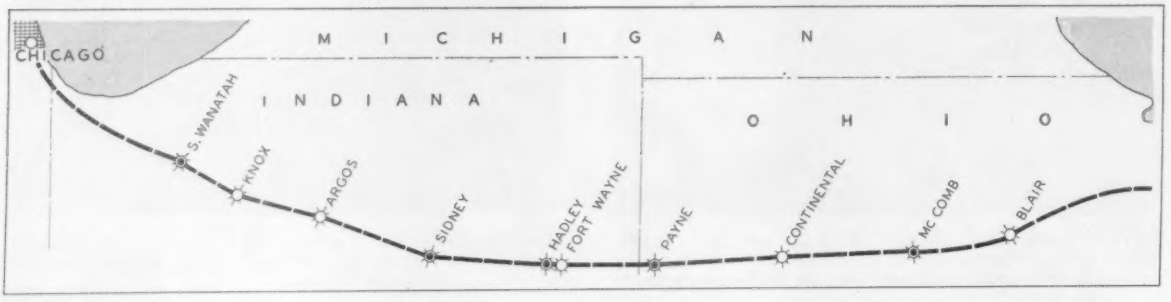
Train radio has enabled the NKP train crew members to have information on matters affecting their trains' operations and thus they work together more effectively. In many ways, some of which are new each day, the radio saves train time so that shipments are expedited, especially during seasons of heavy traffic.

The installation of radio equipment now in service involves 37 steam locomotives, 65 cabooses and 12 wayside offices in the territory between Buffalo and Bellevue, Ohio. Instant communication is provided between dispatchers, operators and train crews of "hot shot" main-line freight trains. On each caboose there is a walkie-talkie, for use by a crew member when he goes out on the ground, enabling him to maintain contact with the train.

An extension of this train-wayside radio system from Bellevue to Chicago will consist of 10 wayside stations which can be controlled by the dispatchers at Fort Wayne, Ind.

Grades and curvature on the NKP main line do not

THE PRESENT TRAIN-TO-WAYSIDE radio system extends from Buffalo to Bellevue. An extension of this system from Bellevue to Chicago will consist of 10 wayside stations controlled by dispatchers at Fort Wayne, Ind.



. . . the conductor seated in the cupola of the caboose where his radio handset is mounted on the wall nearby

Train Radio

conversations, from head-to-rear, or 20 minutes, here and there, lots of work in many operations

appreciably affect the maximum permissible speed of freight trains. One of two sets of dispatchers at Conneaut, Ohio, works east to Buffalo, and the other set works west to Bellevue.

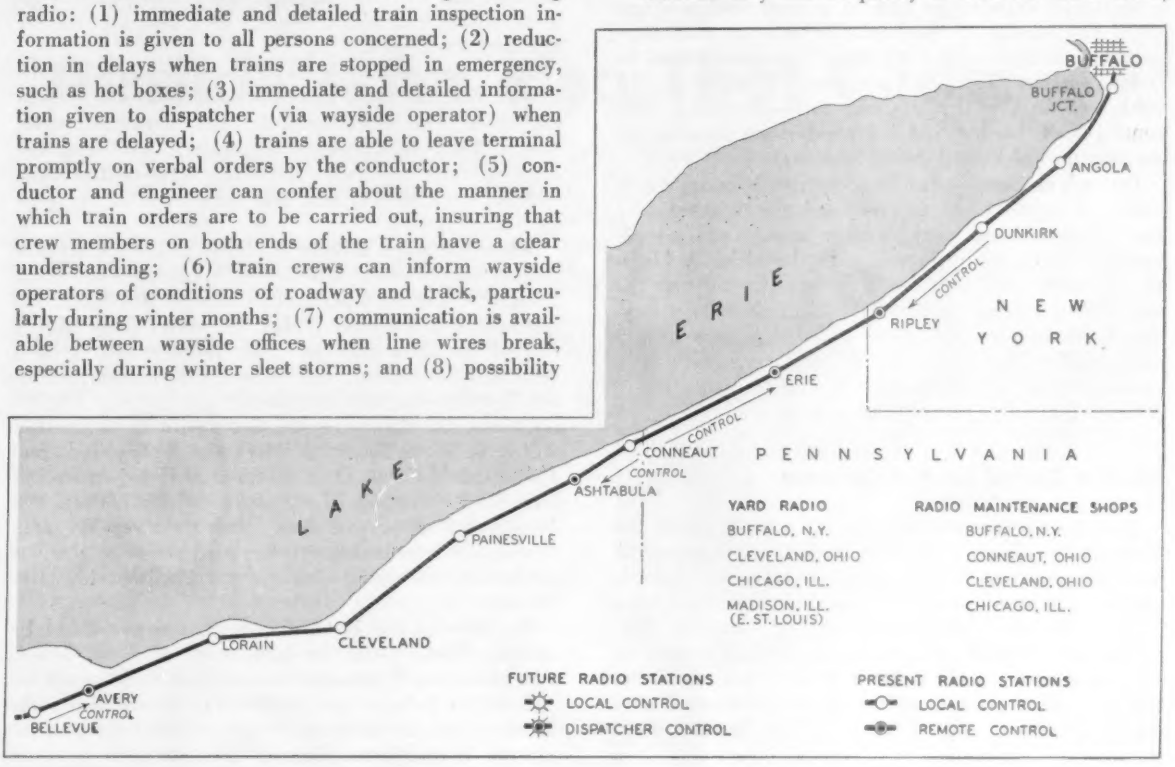
Locomotives and cabooses are changed at Conneaut. One of the symbol trains, NCS-5, nicknamed the "Flying Saucer," provides fast service between Buffalo, Cleveland, Chicago and St. Louis.

Radio Keeps Everyone Informed

The NKP has found these other advantages in using radio: (1) immediate and detailed train inspection information is given to all persons concerned; (2) reduction in delays when trains are stopped in emergency, such as hot boxes; (3) immediate and detailed information given to dispatcher (via wayside operator) when trains are delayed; (4) trains are able to leave terminal promptly on verbal orders by the conductor; (5) conductor and engineer can confer about the manner in which train orders are to be carried out, insuring that crew members on both ends of the train have a clear understanding; (6) train crews can inform wayside operators of conditions of roadway and track, particularly during winter months; (7) communication is available between wayside offices when line wires break, especially during winter sleet storms; and (8) possibility of "break in two" of trains resulting from the conductor "pulling the air" from the rear is reduced, because he usually can radio the engineer to stop the train.

Some freights which are radio equipped pick up and set out cars at towns along the line. Radio expedites this work, reducing overall time spent on the road between terminals. When the train is within 5 or 10 miles of a town where work is to be done, the conductor radios to the operator for detailed information on what cars are to be picked up or set out, and the sidings to be worked.

Because only one frequency is used for train radio,



the head-end crew hears the conversation between the conductor and the operator. Then all men on the train know what to do when the train arrives at the point involved. No time is lost in pulling up to the station, getting instructions, and walking to the engine or caboose to tell the rest of the crew what is to be done. Often the train will make a set-out at the edge of town before arriving at the depot.

While switching work is going on, the crew may have to cut the train for a highway grade crossing, in which case a crew member often takes the caboose walkie-talkie set to the crossing, so he can direct operations from that vantage point. Crews also use walkie-talkies when setting out cars in bad weather (snow or rain) when visibility is poor. The walkie-talkies also serve as standby sets in case of failure of the regular caboose radio.

A sleet storm last winter "took out" line wires west of Cleveland, disrupting message and dispatch phone circuits. For two days trains were kept running with train orders and messages relayed via radio between Cleveland, Lorain and Bellevue.

Radio is used by crews of approaching trains to call yardmasters at Buffalo, Conneaut, Cleveland and Bellevue to find out what yard track they are to use. This saves time for the train and the yardmaster because he knows in advance the approximate arrival time of the train.

The radio equipment on the locomotives and cabooses and in the wayside stations operates on 161.25 mc. Train crews and operators can hear all conversations—between trains and wayside offices; head-end to rear-end of a train; and between trains.

Radio equipment, consisting of three plug-in units (transmitter, receiver and power supply), is mounted on a horizontal drawer-type rack in a sheet steel weather-proof box on top of the tender behind the coal compartment on each of the 37 steam locomotives used in freight service. The radio equipment operates on 115 volts a-c, supplied by a steam turbo-alternator. The control head, handset and loudspeaker are mounted on the rear wall of the cab behind the engineer.

On each caboose, the radio equipment is under a seat bunk. A hand-set and control head are mounted over the conductor's desk, and an extra handset and a loud-speaker are on a cupola wall over the aisle. A Littlephone walkie-talkie is in a wall-mounted hanger over the seat bunk. A Leece-Neville alternator, driven by a Dayton V-belt axle drive, charges a Gould storage battery that supplies 12 volts d-c for the radio equipment, two marker lights, a desk lamp, three ceiling lights and a 200-watt Mars oscillating light and its motor.

Stations Spaced for Full Coverage

This installation now includes 12 wayside radio stations, spaced from 11.1 miles to 30.2 miles apart. A train is always within range of at least one wayside station. Eight wayside radio stations—at offices open 24 hr daily—are at Buffalo Jct., Angola, Dunkirk, Conneaut, Painesville, Cleveland, Lorain and Bellevue. Because the office at Erie is closed from 10 p.m. to 6 a.m., the radio station there can be remotely controlled from Conneaut (28.4 miles distant). Three satellite radio stations are unattended and remotely controlled from

WAYSIDE OPERATOR calls approaching freight train crew to inform them of switching work to be done.

offices open 24 hr daily: Ripley is controlled from Dunkirk (23.5 miles away); Ashtabula from Conneaut (12.8 miles distant); and Avery from Bellevue (11.1 miles distant).

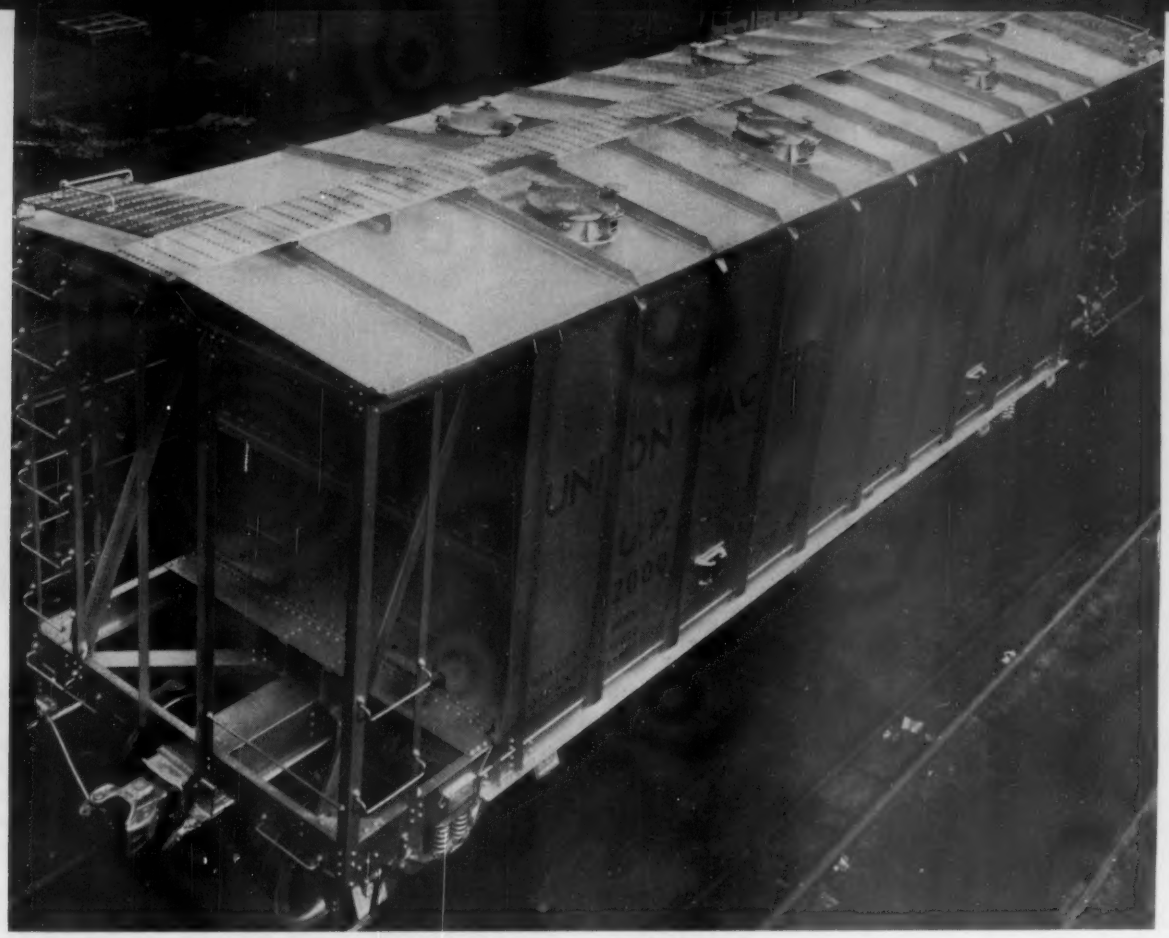
When the yardmaster at Bellevue steps on his foot-switch to talk on his radio, his voice is simultaneously broadcast from the Bellevue transmitter and the Avery transmitter, 11 miles away. The yardmaster can hear calls from trains through either station. The general yardmaster, general superintendent and "BE" telegraph operator can also control the wayside radio station at Bellevue and its Avery satellite. They have either a remote control unit with a handset or a desk set (similar to a desk telephone).

The Conneaut wayside radio station is at "XD" telegraph office, the radio equipment and controls being in the office. The superintendent, chief dispatcher, yardmaster, "MX" telegraph office operator, "XD" telegraph office operator and radio maintainer have control units with handsets and/or desk sets for control of the wayside radio station.

When the office at Erie is closed and the chief dispatcher calls a train on the radio, his voice is broadcast from three stations (Ashtabula, Conneaut and Erie). He can hear a crew's reply if they are within range of any one of the three stations. The radio remote control units at Conneaut can also be used for intercommunication between the various offices.

Unattended stations in the Bellevue-Chicago territory will be at South Wanatah, Sidney and Hadley, Ind., and Payne and McComb, Ohio. Stations at Knox, Argos and Fort Wayne, Ind., and Continental and Blair, Ohio, will be attended all or part time. This train-wayside radio system will complement existing yard radio installations at Buffalo, Cleveland, Chicago and Madison, Ill. (St. Louis).

Engineering and installation work was performed by railroad forces under the jurisdiction of S. W. Miller, superintendent of communications. Radio equipment for the Buffalo-Bellevue installation was furnished by the Bendix Radio Division of Bendix Aviation Corporation and the Westinghouse Electric Corporation.



CARLINES are reversed to help provide smooth interior surfaces. This 2,600-cu ft unit has six roof hatches. The larger 3,600-cu ft car has 10 loading hatches.

PROGRESS REPORT . . .

"Airslide"—An Idea That Clicks

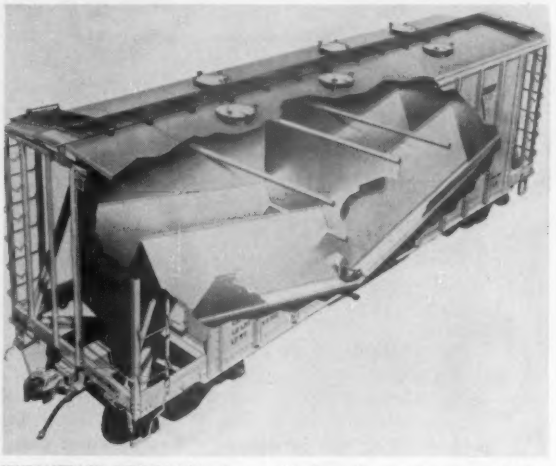
General American's 3-year-old dry-commodity car is a specialized unit with a future—It promises cost-cutting relief to a host of bulk shippers

A freight car that offers something close to true automation in transportation is today chalking up an impressive acceptance record with both railroads and shippers.

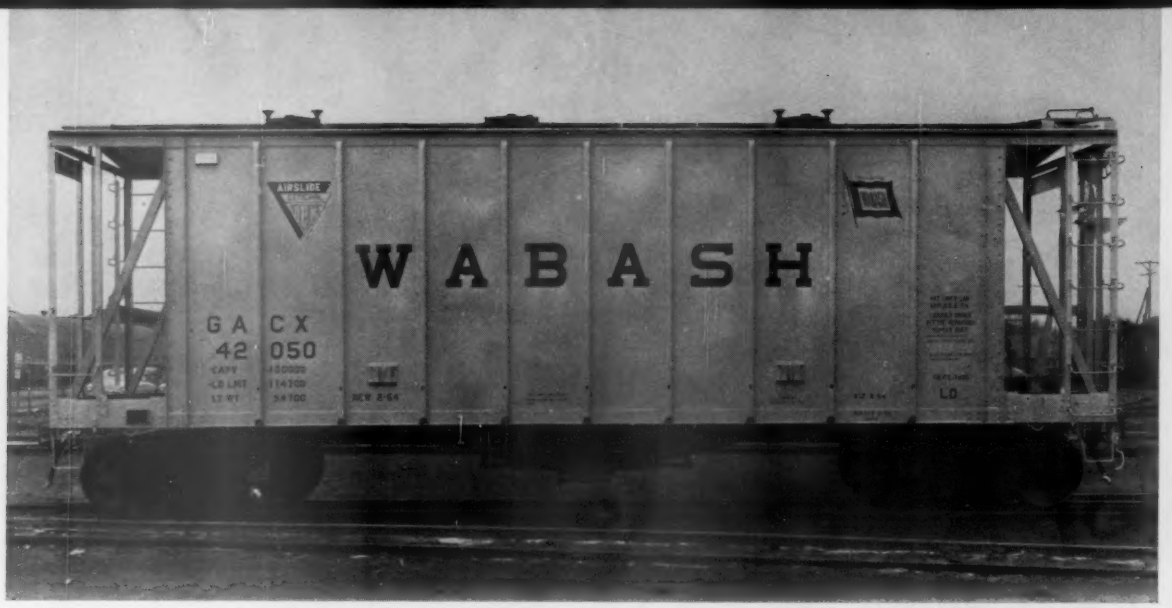
Introduced less than three years ago by the General American Transportation Company, the "Airslide" car is a new approach to bulk transportation. It offers swift, and thereby less costly, loading and unloading. It eliminates small-unit packaging, resulting in substantially less product loss. And it successfully prevents contamination in commodities susceptible to such damage.

To use the words of W. J. Stebler, president of General American, "Airslide" not only fits in with shippers' mechanization but provides "a completely sealed system of transportation." Near-automatic loading and unloading enables a unit of this type to blend into either end of a shipper's or receiver's push-button assembly line.

Today, 23 railroads either own or lease "Airslide" cars. Some 32 major industries use them in day-to-day service. Over 1,900 of the units are in service or on order, mostly of the 2,600-cu ft capacity, and General Ameri-



CUTAWAY SECTION shows 60-deg slope sheets and the 13-deg slope of the "Airslide" section. Air is introduced into lading through the porous fabric along the bottom of the trenches. Discharge outlets are at the center of the car.



TWENTY-THREE MAJOR RAILROADS now have these cars in service. Because they can be unloaded quickly, the cars can be turned with minimum delay.

can reports that present indications point to a substantial number of additional cars being booked this year.

That's a telling record for any new car, especially one that embraces some radically different ideas. But the reason is not hard to find. The development was timely and it offered shippers and receivers some very favorable cost-cutting opportunities.

The handling of flour is a good example. Surveys made jointly by General American and individual baking firms have turned up savings of 18 to 28 cents per 100 lb when flour is shipped in these cars instead of bags. Product loss in bags average approximately 1%.

It is in the bulk movement of flour, incidentally, that "Airslide" cars may now bring about some new rail-highway coordination. An estimated 70% of the nation's bakeries, accounting for around 40% of flour consumption, are located off railroad lines. Late in 1955, General American's subsidiary, the Fuller Company of Catasauqua, Pa., introduced a portable device for transferring flour or similar commodities direct from these cars to motor trucks (*Railway Age*, Jan. 9, p. 122).

This transfer unit, which like the car itself is air actuated, can be used on any ordinary team track. Thus it opens the door for off-line bakeries to take advantage of low-cost bulk shipping, with final delivery by truck. Conversely, railroads now have added service to sell.

While the "Airslide" car was initially thought of as a unit which General American would lease to shippers, particularly in the food industry, the car proved to be surprisingly versatile. It is currently moving a wide range of dry, granular and powdered materials, such as starch, flour, sugar, clays, carbon black, plastic bases, feed ingredients and diversified dry chemical products.

Some early experiments point up this built-in versatility. Bulk handling of sugar was known to be practical, so why couldn't it be handled in the new car?

Early day "sugar cars" were heavily insulated, thereby adding to the cost of the cars. Extensive studies by General American, including the construction of a special laboratory, indicated that an "Airslide" unit without insulation would do the job. Actual service test substantiated these findings, and today sugar shippers are among the foremost advocates of the equipment.

How It's Made

From the first, General American has carried on an active testing program aimed at expanding the car's uses. In addition to extensive laboratory studies, using commodity samples, the company maintains a fleet of test cars which are used to demonstrate bulk shipment operations to potential customers. This way, a carrier or shipper can obtain sufficient data in advance to appraise the car's merits in his particular operation.

The car embodies a simple design, with a minimum of moving parts. Except for normal upkeep, main-

UNLOADING IS SIMPLE AND FAST

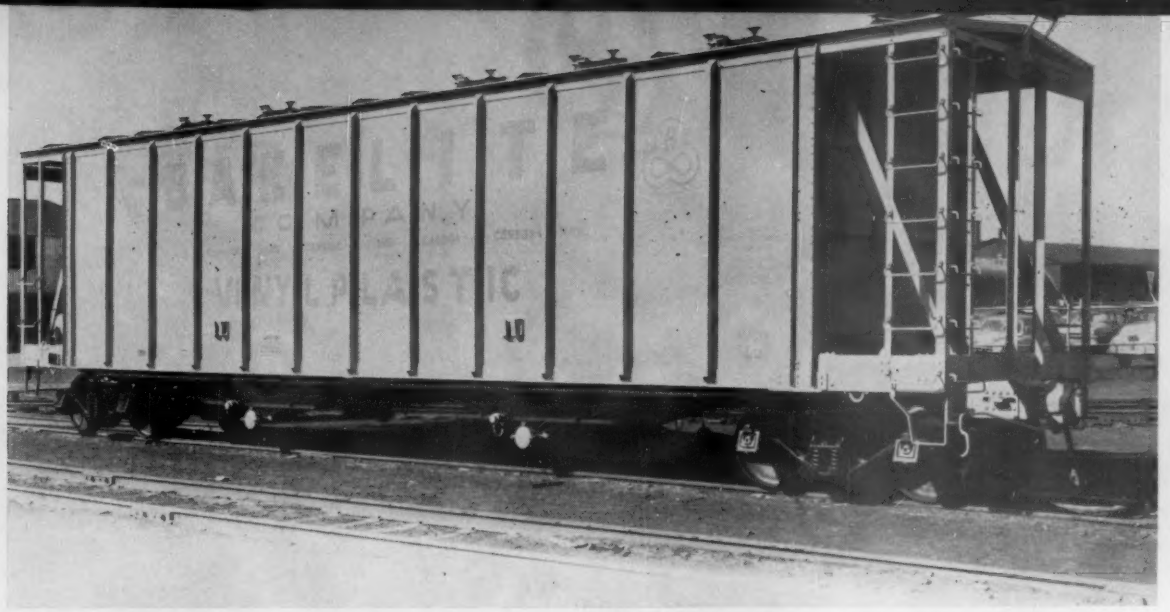
The "Airslide" car can be unloaded, and quickly, into any plant conveying system—pneumatic, gravity into screw conveyor, or simple gravity into under-track hopper.

Air is introduced into the lading through the fabric in the bottom of the car. A positive displacement blower, located at the unloading point, provides the necessary air pressure via a hose connection. Even hard-packed lading can be aerated within minutes. Then it "flows" out readily.

The 2,600-cu ft model has two discharging outlets beneath the car at the center. This arrangement enables the entire load to be discharged without further switching or respotting. Unloading outlets are approximately 13 in. above the rail, depending upon the load, and provide good clearance. (The larger 3,600-cu ft car has four outlet gates.)

In actual test, one major company found that one man unloaded 101,100 lb of material from an "Airslide" car in 2 hours, 18 minutes. A standard hopper car, meanwhile, with 70,000-lb load and two men working, required 5 hours, 15 minutes to unload.

General American reports that, at least up to this time, it hasn't found a conveying system with capacity to unload the car at its maximum potential speed.



LARGE 3,600-CU FT CARS are used in the movement of vinyl plastics. More than 30 industries now use the car for bulk shipments of dry, granular or bulk materials.

tenance has not been a problem. There hasn't been, for example, a single reported case of the "Airslide" fabric itself wearing out. In fact, results to date indicate that under normal operation the fabric may well last the life of a car. In the cement industry, such fabric is used to convey hot cement 24 hours a day, and there are cases where it has been in constant use for seven years without replacement.

No special adaptations have been made in the basic General American car to fit individual commodities. None is needed. A buyer or lessee does have this option: In case a car is to handle commodities subject to contamination, particularly foodstuffs, a special lining is applied and baked on all interior surfaces when the car is built.

The basic car is, in essence, a covered hopper of all-welded construction. The major portion of the car body is welded automatically. Here are the car's highlights:

Loading Hatch Covers: Made of cast aluminum, circular, and fitted with rubber gaskets, these hatch covers afford water-tight protection.

Hopper Sections: Two trenches run the full length of the car on each side of the center sill. The sides of each trench are sloped at 60 deg to insure clean and rapid discharge of lading. Slope sheets are welded to provide smooth surfaces.

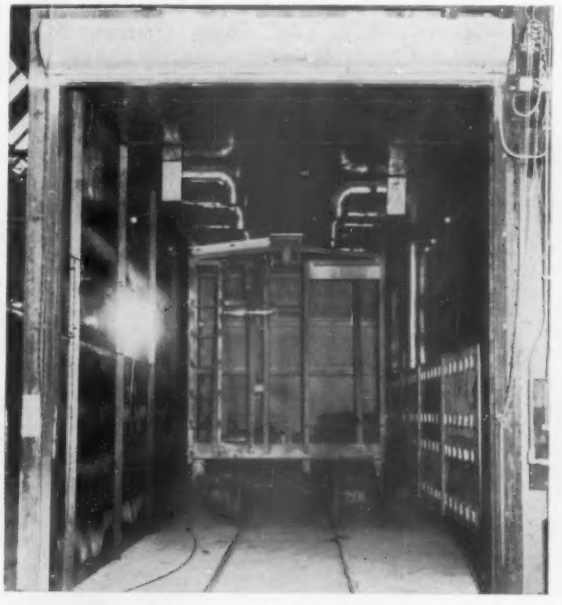
"Airslides": These consist of strips of tightly woven cotton fabric, silicone treated. Each strip is 12 in. wide, ¼ in. thick, impervious to moisture, and porous. Located at the bottom of the hopper sections, the "Airslides" slope at a 13-deg angle toward the discharge outlets at the center of the car.

The underside of each strip of fabric is totally encased by a steel U-section. This creates the chamber into which low pressure air is introduced from the outside blower. The air passes through the fabric and into the lading, aerating it and giving it the flow properties of a liquid. The lading then flows down the fabric by gravity to the discharge outlets.

Roof Construction: Carlines are reversed, and are on the outside surface of the roof. This leaves a smooth "ceiling" inside the car, permitting easy cleaning and minimum product retention.

Discharge Outlets: Under full load, these outlets are approximately 13 in. above the top of the rail. This high design permits easy connection to any conveying system for unloading. The outlets are protected with two independent closure devices—an interior swing valve and a rubber-gasketed cover plate which seals against contamination from the outside or product leakage from within. This cover plate is hinged and locks in place with two nuts.

General American offers the car in three sizes—2,000, 2,600 and 3,600 cu ft capacities. The car carries an AAR designation of LO Type. Overall length between coupler pulling faces is 37 ft 9 in. in the smallest model, 42 ft in the next larger unit and 53 ft 3 in. in the 3,600-cu ft car.



IN THE BAKING OVEN, which will handle two cars at a time, an enamel-like interior finish is applied. Cars so treated are intended for commodities susceptible to contamination.

OFFICE SPACE for the freight agent and his staff and the division offices is provided in the two-story portion of the terminal.

All Services Under One Roof

AT BUFFALO LV TERMINAL

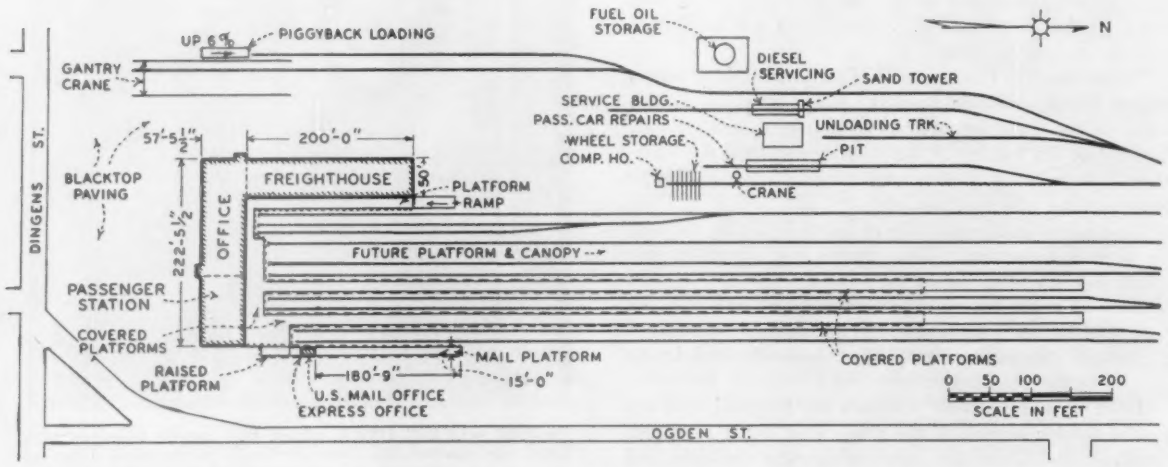
New facilities, 4¼ miles from site of former station in heart of city, are compact and efficient and cost only $1.2 million—Old right-of-way into city taken over by New York State Thruway

Another railroad has moved its freight and passenger terminal to the outskirts of a big city. At Buffalo, the Lehigh Valley has given up its "downtown" location and has moved into a new facility 4¼ miles away in East Buffalo.

The new station is in what is described as a rapidly developing area, readily accessible from all sections of the city. This is one advantage the road is realizing from the move. Probably more important is that, along with the new location, it has obtained, at a cost of only $1,200,000, a modern terminal, compact and efficient in arrangement, with practically all services and personnel housed under one roof, including a waiting room that sets a new style in the use of glass in the side walls.

Principal components of the new terminal are:

- A passenger station and related facilities
- An LCL freighthouse
- Offices for the freight agent and staff
- Offices for the division superintendent and staff
- Express and mail-handling facilities
- Repair and servicing facilities for passenger cars



COMPLETE FACILITIES for handling passengers and lcl freight business are included in the new layout.

SIDE WALLS of the passenger station are composed almost entirely of heat-resisting glass.

- Diesel locomotive servicing layout
- Ramp for handling trailers on flats
- Forty-ton crane for handling bulky shipments.
- Parking space for several hundred automobiles

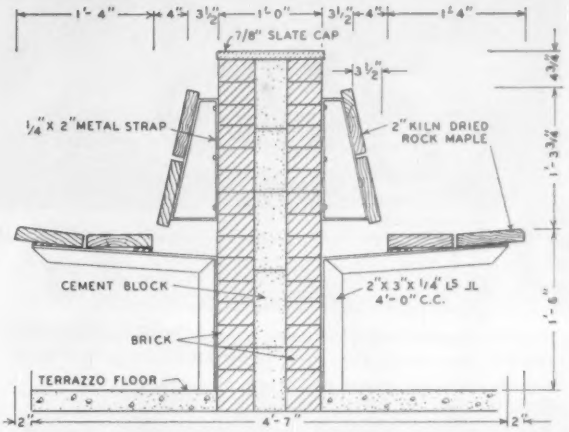
Former Line Sold for Highway

The project to build a new terminal was a result of an agreement between the railroad and the New York State Thruway Authority, which needed a route into downtown Buffalo for a segment of a superhighway known as the Niagara Thruway. For this segment the railroad, for $6,900,000, gave up 4¼ miles of right-of-way, ranging in width from 60 to 125 ft. The property involved extends from Dingens street in East Buffalo into the old terminal at Scott and Washington streets. As part of the agreement, the railroad reserved the right to move any of the old facilities or appurtenances that could be shifted.

The new terminal faces south on Dingens street and is flanked on the east by Ogden street. Immediately to the west is an undeveloped area available for industrial use. Part of the site on which the terminal is situated was formerly occupied by two steam locomotive enginehouses and related facilities.

The layout is of the stub-end type and has 10 tracks. Arranged around the ends of the tracks in a U-shaped pattern are the buildings comprising the terminal. The horizontal part of the U consists of a two-story building at one end, housing offices and other facilities, and a waiting room at the other. The leg of the U on the west is an lcl freightroom 50 ft by 200 ft. The leg of the U on the east consists of the express and mail offices and a mail-handling platform. There are two island passenger platforms 1,000 ft long, each protected by a canopy, and, in addition, space is provided for a third passenger platform if it should become necessary.

On the first floor of the two-story building are the office of the freight agent and his staff; space for Pullman employees, including locker and wash rooms; space for an electrical equipment room and for car-repair employees; and an office for the passenger agent. The division offices are on the second floor. Housed here



SETTEES in the waiting room, of the back-to-back type, are of a distinctive design, as shown by this cross section.

TICKET OFFICE and baggage space in passenger station comprise a "room within a room."

OFFICES have acoustical ceilings, fluorescent lights and plenty of windows.

are the superintendent, trainmaster, train dispatcher and related personnel, the division engineer and his staff, the claims department and the police office.

Economy with Attractiveness

The design and construction of the facility were based on the need for economy, but with attractiveness and comfort given equal attention. Basic construction consists of concrete foundations and floors, cement block walls and partitions and steel roof decking covered with build-up roofing having a tar-and-gravel finish. There is plenty of fenestration throughout. Exterior walls of the office and waiting room portions are faced with medium pink iron spot brick. Elsewhere the cement block is left exposed.

Sash in the office and waiting room sections are of aluminum, and this material is also used for copings and for trim around canopies. Sash in the lcl freight-room are of steel.

"A Piece of Outdoors Heated"

An eye-catching feature of the waiting room is the large areas of Solex heat-resisting glass forming the three exposed sidewalls. On the side facing Dingens street, above a brick curtain wall, the entire wall of the waiting room is of this material.

The panels are continuous from the curtain wall to the roof coping, being separated by vertical aluminum mullions. Showing through the glass at the top of this wall are the words "Lehigh Valley Railroad" mounted, in channel-type stainless steel letters, on an exposed roof-supporting beam extending the length of the waiting room. On the track side, the waiting room opens onto a covered platform and here also the waiting-room wall is of glass above and below the canopy. At the east end of the waiting room (which faces Ogden street) the glass wall extends above a large granite panel on the exterior on which is mounted the words "Lehigh Valley Railroad" in stainless steel bar-type letters.

The entrance doors on the street and track sides of the waiting room are protected by glass-enclosed vestibules. Because so much of the wall space of the waiting room consists of glass it has been described as "a piece of outdoors heated."

On the interior of the waiting room those portions of the walls that are not glass are finished in the brick used on the exterior. The waiting room has a suspended Fiberglas ceiling and terrazzo floors. Troffer-type fluorescent lights mounted in the ceiling are controlled by a time switch.

These lights, and those throughout the structure, are provided in panels of the same size as the acoustical ceiling material.

Back-to-back settees of an unusual design are provided in the waiting room. The seats and back rests are made of varnished maple supported by metal brackets fastened to continuous brick piers with slate tops.

In one corner of the waiting room is space for the station master and the ticket agent, separated from the waiting room proper by partial brick partitions. Alongside the ticket office are a news stand and a lunch

counter. At the opposite end of the waiting room are two telephone recesses without doors, several tiers of recessed parcel lockers and the public rest rooms.

Movable Partitions in Offices

Offices in the two-story building have asphalt tile floors and Fiberglas ceilings with recessed fluorescent lights. Where the walls are of cement block, they are painted. Some of the offices are closed off by glazed, movable partitions of steel, 7 ft high. All windows in the offices are fitted with venetian blinds.

Heating throughout is by fin-type radiators, and in addition the waiting room has forced ventilation. A partial basement under the office portion contains two oil-burning boilers which supply steam for heating the station and passenger cars.

In the lcl freightroom the roof is carried by "long-span" steel joists which span between the sidewalls. There is a covered platform 10 ft wide on the track side, and on the tailboard side there is a canopy 4 ft wide. At the end of the room adjoining the office section are a warm room, locker and toilet facilities for freighthouse employees, and an office. Freight doors on both the track and tailboard sides are of the sectional overhead type, made of steel, and manually operated. There is a continuous line of fenestration along both sides of the structure above the doors.

The mail-handling platform, at car-floor height, is roofed and is enclosed on the ends and on the tailboard side, but is open on the track side. Construction is generally similar to that of the lcl freighthouse, including the use of overhead doors on the tailboard side. The mail and express offices, at the south end of the mail platform, are warmed by unit heaters.

Construction of Canopies

The butterfly canopies protecting the passenger platforms consist of a line of wide-flange steel columns carrying a roof structure of steel beams. Over this is a Holorib roof deck carrying ½ in. of rigid insulation covered by built-up roofing. The same construction is used for most of the other canopies and for the roof of the lcl freighthouse.

Ample outlets are provided in the station yard for servicing passenger cars. Between each of three pairs of tracks there is a line of concrete piers which contain air, steam and electrical connections. There are also three lines of coach-watering hydrants.

The passenger-car repair area and the diesel servicing layout adjoin the station tracks on the west side. The passenger-car facilities consist of two tracks, one with an inspection pit. There is a wheel-storage area, a jib crane for handling wheels, a car puller and a drop pit.

The diesel servicing facilities consist of a single-track servicing platform, a fuel-oil storage tank and a sand and fuel unloading track. A cement-block service building with welfare facilities for employees is provided here for the use of both the locomotive and car departments. There is also a small prefabricated steel building housing a compressor.

This project was carried out under the general supervision of R. E. Patterson, chief engineer, construction—maintenance, of the Lehigh Valley. The firm of Lacy, Atherton & Davis, Wilkes-Barre, Pa., did the architectural work, and the Sordoni Construction Company, Wilkes-Barre, was the general contractor. The track work was done by railroad forces.

PASSENGER platforms have butterfly canopies of steel construction.

FREIGHTHOUSE has continuous fenestration above the overhead doors on both sides.

MAIL-HANDLING platform is enclosed on the tailboard side but open on the track side.

REPAIR FACILITIES for freight cars are included in layout. Main buildings in background.

Railway Officers

(Continued from page 15)

CHICAGO & EASTERN ILLINOIS.—W. E. Callender, general freight traffic manager at Chicago, has been promoted to the newly created position of assistant to vice-president, traffic there, and has been succeeded by **C. A. Ernst,** assistant freight traffic manager. **E. G. Kasper** has been appointed general agent at Memphis, Tenn.

G. F. Cermak, director, industrial development at Chicago, has been promoted to freight traffic manager there. Mr. Cermak's successor is **G. A. Craig,** coal freight agent at Chicago, who in turn has been replaced by **Richard E. Miller. W. G. Wrightsman** has been named sales manager, merchandise-trailer traffic at Chicago.

CHICAGO & NORTH WESTERN.—Sam Fesus has been appointed superintendent car department, **C. P. Nelson** has been named assistant superintendent car department, and **E. W. Gebhardt** has become assistant superintendent car shops, all at Chicago. **M. H. Crandall** has been appointed master mechanic, Dakota division at Huron, S. D. **H. P. Cox,** superintendent of shops at Clinton, Iowa, retired December 31.

COTTON BELT.—T. E. Martin, assistant purchasing agent, has been appointed purchasing agent at St. Louis, Mo.

G. R. Knight, assistant superintendent of rules and safety at Pine Bluff, Ark., has been promoted to superintendent of rules and safety at Tyler, Tex., succeeding **L. E. Hoffman,** retired.

C. S. Edmonds, commercial agent at Cleveland, Ohio, has been appointed general agent at Amarillo, Tex., succeeding **E. M. Vernon,** retired.

DELAWARE & HUDSON. — Michael J. McDonough has been appointed assistant superintendent at Carbondale, Pa. **Robert N. Clemons** has been named assistant superintendent and trainmaster at Oneonta, N.Y. The position of assistant superintendent and trainmater at Carbondale, and the position of trainmaster at Oneonta, have been abolished.

EAST JERSEY RAILROAD & TERMINAL CO.—Maurice D. McBride, secretary, superintendent and general freight agent at Bayonne, N.J., retired December 31, 1955.

FLORIDA EAST COAST.—Robert H. Anderson, general solicitor of this road at Miami, retired from that position January 16 to accept an appointment as Circuit Judge for Dade county, Fla.

FRISCO.—F. K. Duren and **D. W. Patton** have been named safety supervisors at Chaffee, Mo., and Amory, Miss., respectively.

LACKAWANNA — George F. Bachman, superintendent of diesel locomotive maintenance at Scranton, Pa., has been appointed assistant general superintendent motive power and equipment at that point, not general superintendent as announced, because of a printer's error, in the January 23 issue, page 50.

Thomas J. McDermott, mechanical engineer at Scranton, retired January 31.

MINNEAPOLIS & ST. LOUIS. —R. B. Lorvick, traveling agent at St. Louis, has been named general agent at New Orleans, succeeding **J. J. Mullen,** who has been promoted to general agent at Philadelphia, replacing **George Graver,** retired. **W. T. Ahearn** has been promoted from assistant general agent to general agent at New York.

S. J. Owens, assistant to the chief engineer of the Burlington, has been appointed chief engineer of the M&StL, effective February 15, to replace **C. S. Weatherill,** who has been appointed to the newly created position of consulting engineer.

James R. Sullivan, supervisor of personnel development of the **Illinois Central** at Chicago, has been appointed chief personnel officer of the M&StL at Minneapolis, succeeding **F. H. Barry,** who retires March 1.

Mr. Owens entered railroad service with the Burlington in 1934. After serving in various capacities he became division engineer at Casper, Wyo., in 1950. He was appointed district engineer at Omaha in 1953 and assistant to chief engineer in 1955.

MISSOURI PACIFIC.—J. W. Marshall, trainmaster at De Quincy, La., has retired and has been replaced by **C. C. Mathews, Jr.,** assistant trainmaster at San Antonio, Tex. **F. B. Tinsley** has been appointed division trainmaster, Missouri division and Missouri-Illinois Railroad at Popular Bluff, Mo., to succeed **J. R. Baker,** retired.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—P. J. Climer, car accountant at Nashville, Tenn., has retired and the position has been discontinued. Car accounting work is under the jurisdiction of **H. G. White,** auditor of disbursements.

NEW YORK CENTRAL.—J. V. Hughes, general superintendent at New York, has been appointed assistant general manager there, and **W. B. Salter,** general superintendent at Syracuse, N.Y., has been named assistant general manager there. The former positions of Messrs. Hughes and Salter have been abolished.

F. I. Doebber, former trainmaster at Albany, has been appointed assistant superintendent of the Buffalo division at Buffalo, N.Y., succeeding **J. J. Danhof, Jr.,** who has been appointed to superintendent, St. Lawrence—Adirondack—Ottawa division, at Watertown, N.Y., replacing **I. A. Olp,** who has been named superintendent of transportation, Eastern district, at Syracuse, N.Y., **R. D. Timpany,** assistant superintendent at Albany, has been appointed superintendent of the **Boston & Albany** at Boston, Mass. **F. W. Scully,** trainmaster at West Springfield, Mass., has been named

(Continued on page 46)

W. E. Callender

C. A. Ernst

S. J. Owens

James R. Sullivan

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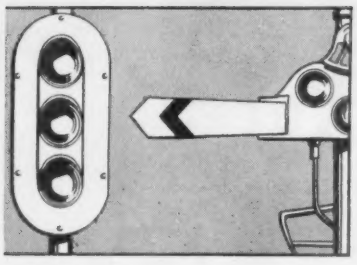

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(Continued from page 42)

division trainmaster of the B&A at Boston. **H. C. Oldfield** has been appointed trainmaster, Pennsylvania division, at Newberry Junction, Pa., succeeding **R. J. Dorey,** who has been transferred to Corning, N.Y., to replace **F. A. Chase,** retired.

The following changes in titles have been made: AT BOSTON—W. L. Wheat, from assistant freight traffic manager to freight sales manager; J. G. Patten, from general freight agent to freight sales manager; J. J. Trifero, from assistant general freight agent to assistant freight sales manager; G. D. Avery, from assistant general freight agent and manager industrial development, to manager industrial development; W. H. Naylor, from assistant general freight agent to division freight sales manager. G. W. Stiglich and K. L. Guyton, from division freight agents to division freight sales managers at Worcester, Mass., and Springfield. AT CHICAGO—A. W. Morgan, from assistant freight traffic manager to freight sales manager; J. R. Tascik, from general freight agent to freight sales manager; W. K. Ulrich, from assistant freight sales manager; A. W. Behrens, from general coal freight agent to coal sales manager. AT KANKAKEE, ILL.—W. A. Kraus, from division freight agent to division freight sales manager. AT DETROIT, MICH.—A. C. Lennartz, from assistant freight traffic manager to freight sales manager; H. O. Williams, from general freight agent to freight sales manager; L. A. Ordick, from assistant general freight agent to assistant freight sales manager; R. T. Mason, from assistant general freight agent to assistant freight sales manager; G. E. Wheeler, from general coal freight agent to coal sales manager; D. B. Zellers, from assistant general freight agent to division freight sales manager. J. L. Moon, L. A. Cummings, F. E. Charipar and J. A. Machan, from division freight agents to division freight sales manager at Kalamazoo, Grand Rapids, Bay City (Mich.) and St. Thomas (Ont.), respectively. AT CINCINNATI—C. V. Sheriff, from assistant freight traffic manager to freight sales manager; J. R. Ray, from general freight agent to freight sales manager; J. M. Burke, from assistant general freight agent to assistant freight sales manager; C. W. Winklepleck, from assistant general freight agent to assistant freight sales manager; G. W. Childers, from general coal freight agent to coal sales manager; T. H. Willings, from division freight agent to division freight sales manager. AT ST. LOUIS—L. C. Howe, from assistant freight traffic manager to freight sales manager; G. T. Magee, from assistant general freight agent to assistant freight sales manager. T. J. Davis, J. P. Roth and G. T. Sullivan, from division freight agents to division freight sales managers at Dayton (Ohio), Louisville (Ky.) and Terre Haute (Ind.), respectively. AT CLEVELAND—G. H. Ingalls, from assistant freight traffic manager to freight sales manager; P. J. Schweibinz, from general freight agent to freight sales manager; P. P. Belitz, from coal traffic manager to coal sales manager; E. M. Johns, from assistant general freight agent to division freight sales manager. AT TOLEDO—J. L. Robinson, from assistant general freight agent to division freight sales manager. J. V. Laffan and C. C. Sampson, from division freight agents to division freight sales managers at Charleston, W. Va., and Columbus, Ohio, respectively. AT NEW YORK—T. M. Shalloe, from assistant freight traffic manager to freight sales manager; E. D. Snow, from general freight agent to freight sales manager; F. P. Soen, from coal traffic manager to coal sales manager; N. R. McCormick, from assistant general freight agent to assistant freight sales manager; O. H. Grimm, from general eastern freight agent to division freight sales manager; J. P. Brady, from division freight agent to division freight sales manager; F. J. Donovan, from foreign freight agent to foreign freight sales manager. J. M. Donovan, S.A.R. Lancto and J. P. Huppmann, from assistant general freight agents to division freight sales managers at Albany, Buffalo and Syracuse, respectively.

PEORIA & PEKIN UNION.—O. H. Gaertner has been appointed secretary-treasurer and auditor, succeeding **C. Leber,** who retired December 31, 1955, after 50 years of railroad service, including 35 with the P&PU.

PIEDMONT & NORTHERN.—George A. Holzberger has been appointed general eastern agent at New York, succeeding **E. E. Culbreath,** promoted.

PENNSYLVANIA. — Walter L. Lloyd has been appointed manager of coal research and development at Philadelphia, a new position, and **Joseph H. Cairnes** has been named assistant manager of coal traffic sales and rates at that point, succeeding **John B. Carey,** who succeeds Mr. Lloyd as manager of coal and ore traffic sales, Lake Region, at Cleveland. **Fred K. Price,** chief clerk to district sales manger at Youngstown, has been promoted to district sales manager, freight sales and services, at Akron, succeeding **O. P. Varnell,** who replaces Mr. Cairnes as district sales manager at Columbus.

RAILWAY EXPRESS AGENCY.—Frank J. Fagan, superintendent of organization at New York, has been appointed general manager of the Midwest—Texas divisions at Houston, Tex., succeeding **Robert A. Miller,** who has been transferred to the Eastern Lakes divisions at Detroit, Mich.

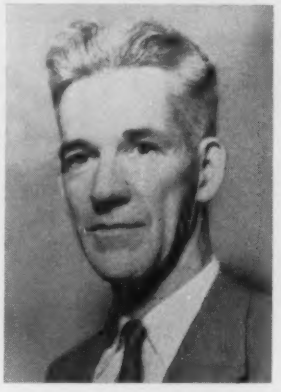
Harold Spath, secretary to president, has been appointed general agent at New Haven, Conn.

Robert G. McLain has been appointed assistant director, business planning, at New York. **Barney O. Lane** has been named general agent—sales at Cleveland, succeeding **Charles C. Worbington,** who has been transferred to New York.

READING.—Joseph A. Burke, chief of yard and terminal operation at Philadelphia, has been appointed superintendent, Reading division, at Reading, Pa., succeeding **William E. Martin,** retired. **Joseph J. McCool,** superintendent of safety at Reading, has been named assistant superintendent, Reading division, succeeding **Harry B. Gauntt,** who replaces Mr. Burke as chief of yard and terminal operation at Philadelphia. **Charles K. Hoch,** assistant safety superintendent, has been appointed superintendent of safety, to succeed Mr. McCool. **C. D. Barwick,** assistant superintendent stations and transfers at Philadelphia, has retired, and that position has been abolished.

SANTA FE.—J. R. Walter, assistant general freight agent at San Francisco, has been appointed general freight agent at Chicago.

SEABOARD.—R. J. O'Keefe, assistant superintendent of car service, has been appointed superintendent of



R. J. O'Keefe

car service at Portsmouth, Va., succeeding **W. R. Olive,** who retired December 31, 1955, after 46 years

E. L. Lash, Jr.

of service. **T. H. King,** inspector of car records, succeeds Mr. O'Keefe as assistant superintendent of car service.

(Continued on page 50)

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A Triple Feature for MARCH

Railway Age—March 12, 1956 Issue —*A.R.E.A. Pre-Convention Feature*

This issue of *Railway Age* will feature the A.R.E.A. convention program and special articles on engineering developments pertinent to job-interests of those attending the A.R.E.A. convention in Chicago (Palmer House, March 13-15). In addition to the regular mailed copies, this issue will also be distributed at the convention.

Railway Age—March 19, 1956 Issue—*A.R.E.A. Convention Report Number*

This issue of *Railway Age* will provide the first printed summaries of addresses, committee recommendations and other convention activities . . . printed with newspaperlike speed to insure delivery to railway engineering officers around the country immediately following the convention's close.

Railway Track & Structures—March 1956
—Equipment Economies Number

Each year this issue of *Railway Track & Structures* concentrates editorial attention on M/W work equipment . . . it reports case histories of developments on individual railroads, features descriptions of new devices, timed to reach readers before leaving for the A.R.E.A. convention. In addition to the regular mailed copies, this issue will also be distributed at the convention.

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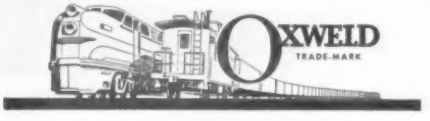


(Continued from page 46)

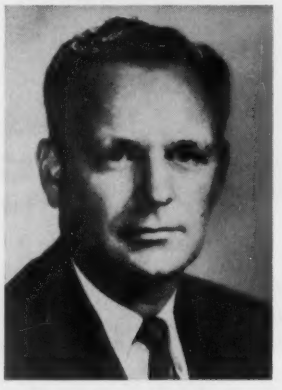
E. L. Lash, Jr., assistant treasurer and assistant secretary at Portsmouth, Va., has been elected secretary of the road at Norfolk, succeeding the late **William F. Cummings** (*Railway Age,* January 2, page 15). **George V. T. Dow,** paymaster, succeeds Mr. Lash as assistant treasurer and assistant secretary.

The position of master mechanic, Alabama division, at Americus, Ga., and his office, has been abolished, effective with the close of business January 31.

R. W. Murray, general diesel supervisor at Norfolk, Va., has been transferred to Hamlet, N.C. **E. A. Thurmond** has been appointed general diesel supervisor at Jacksonville, Fla.

SOUTHERN.—J. Floyd Beaver, chief engineer, maintenance of way and structures, at Charlotte, N.C., has been named assistant chief engineer of the system at Washington, D.C., succeeding **Edgar Bennett,** who retired February 1. **John A. Rust,** superintendent of the Charlotte division at Greenville, S.C., succeeds Mr. Beaver as chief engineer, maintenance of way and structures at Charlotte. **Donald D. Strench,** superintendent at Selma, Ala., has been transferred to the Columbia division at Columbia, S.C., succeeding **J. Ray Brosnan,** who succeeds Mr. Rust at Greenville. **Thomas D. Moore, Jr.,** trainmaster at Danville, Ky., replaces Mr. Strench as superintendent at Selma.

J. Floyd Beaver



John A. Rust

VIRGINIAN.—A. F. Schafhirt, assistant to general traffic manager, has retired.

WESTERN MARYLAND.—John Byer, general storekeeper at Hagerstown, Md., has been promoted to superintendent of stores at that point, succeeding **J. L. Hartzell,** who retired January 31.

OBITUARY

Stanley F. Mackay, 77, president and general manager of the **Lehigh & Hudson River** at Warwick, N.Y., died February 2.

John Frederick Dalton, director of industrial and agricultural development of the **Norfolk Southern** at Norfolk, Va., died January 26.

J. Paul Cowley, 70, retired vice-president and general manager of the **Santa Fe Gulf Lines,** died recently at Temple, Tex.

S. B. Higginbottom, 64, assistant chief engineer—signals and electric traction, **Long Island,** at Jamaica, N.Y., died February 6.

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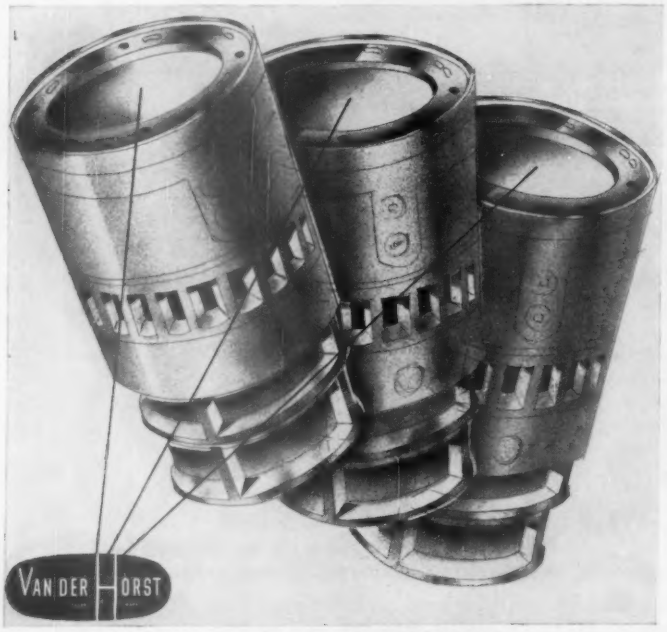

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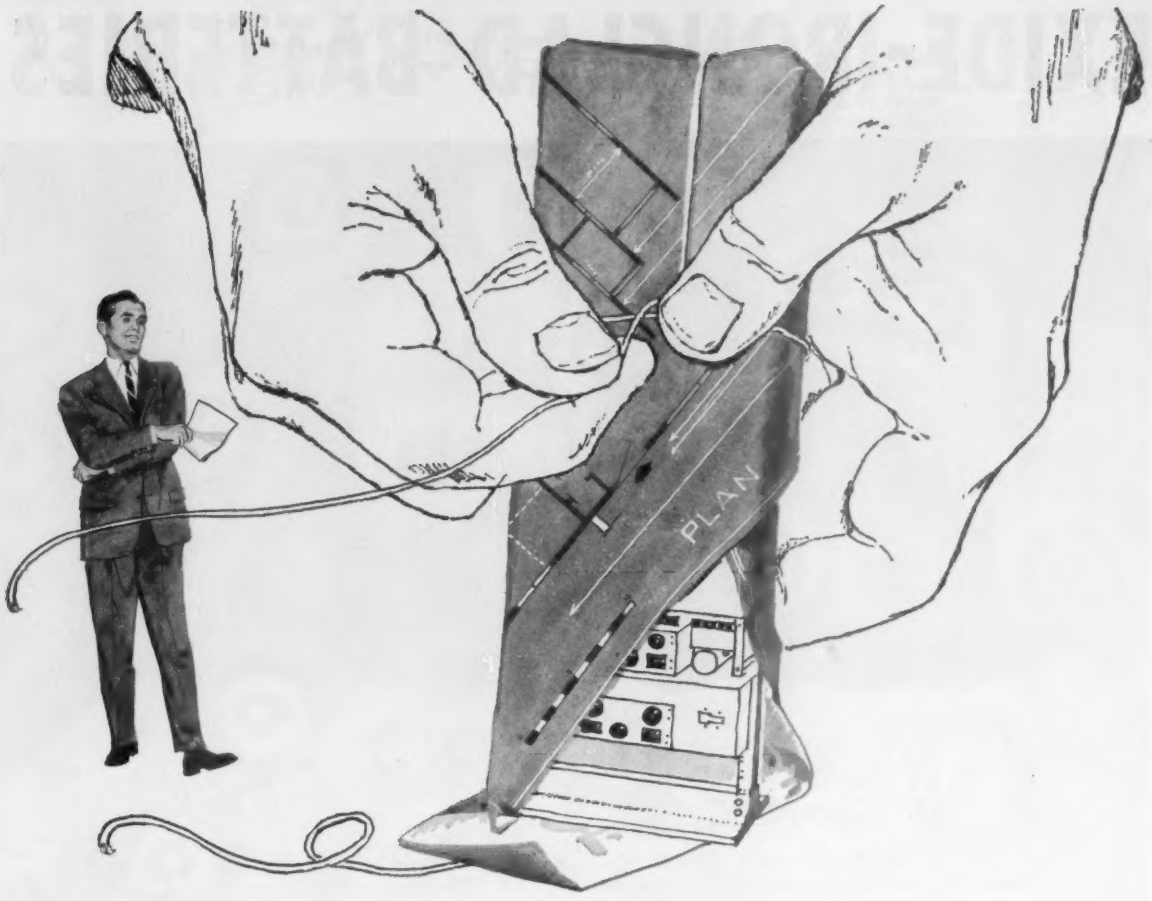

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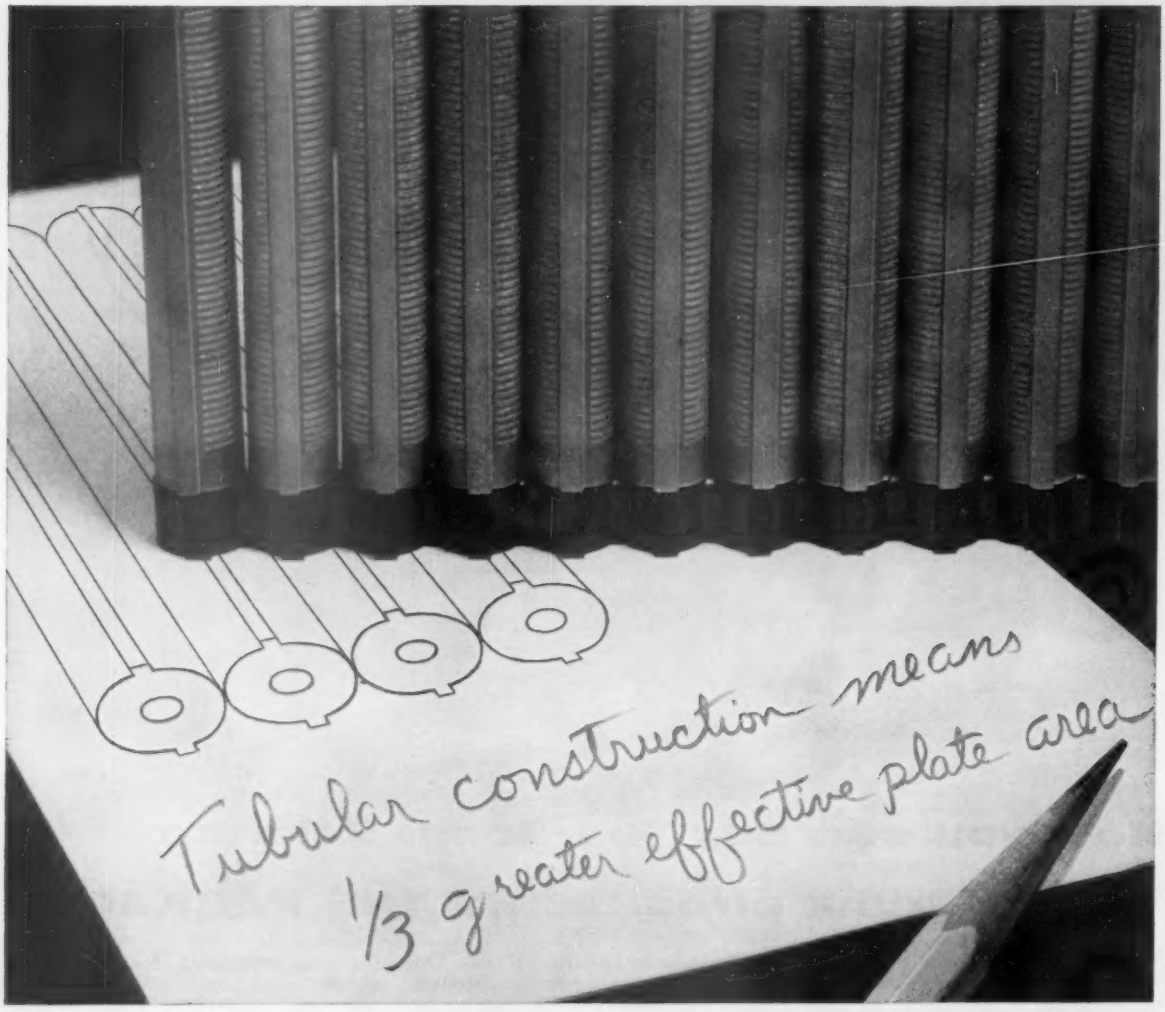

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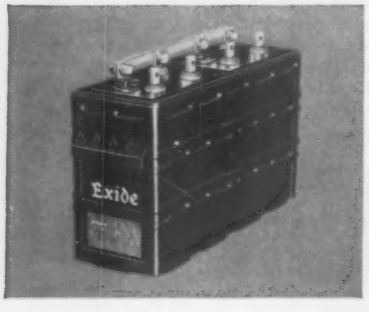

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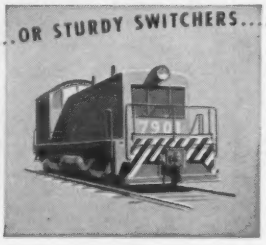

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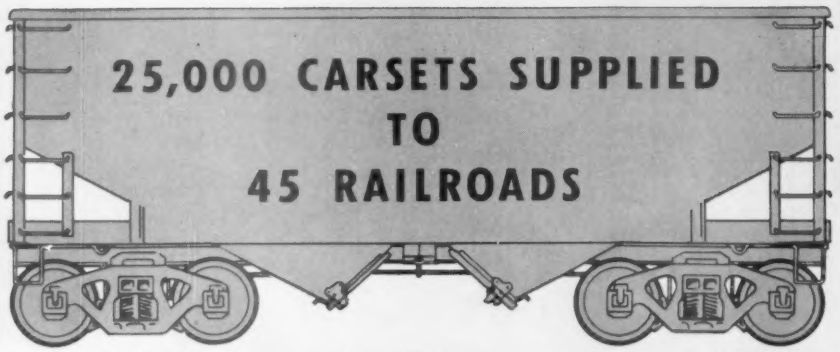

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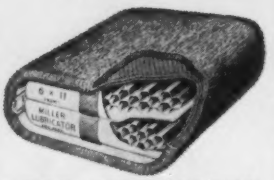

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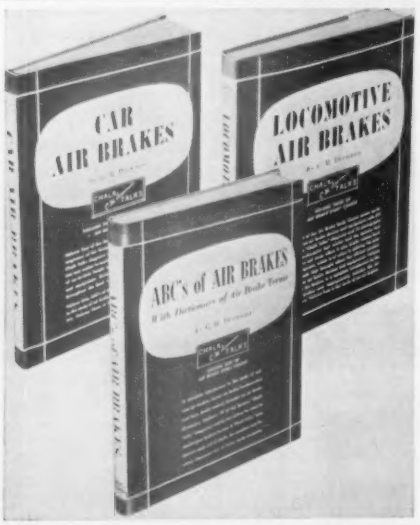

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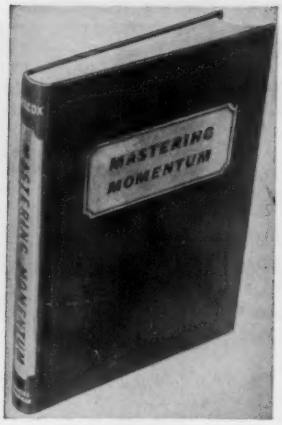

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